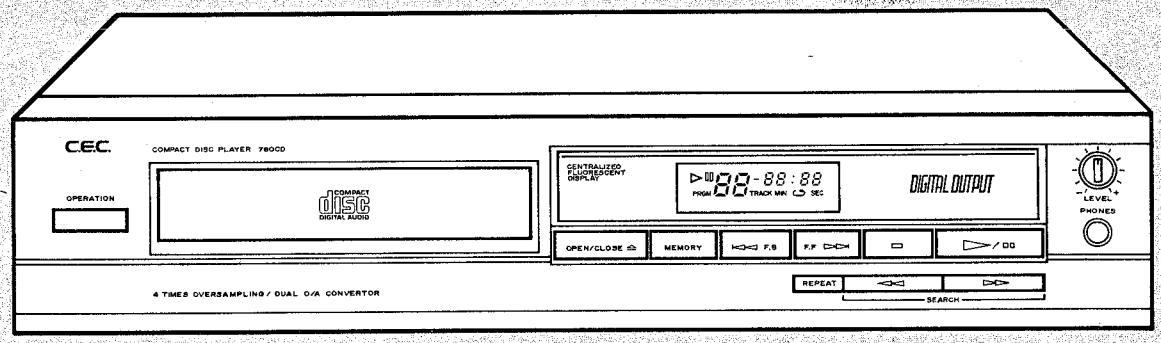
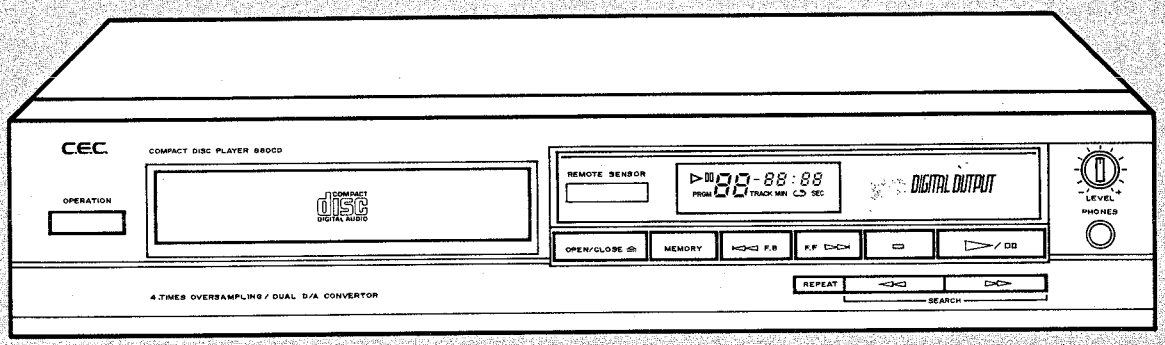
DIGITAL COMPACT DISC PLAYER

C.E.C. 780CD/880CD

SERVICE MANUAL





COMPACT disc DIGITAL AUDIO

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Schematic Diagram is separately attached.

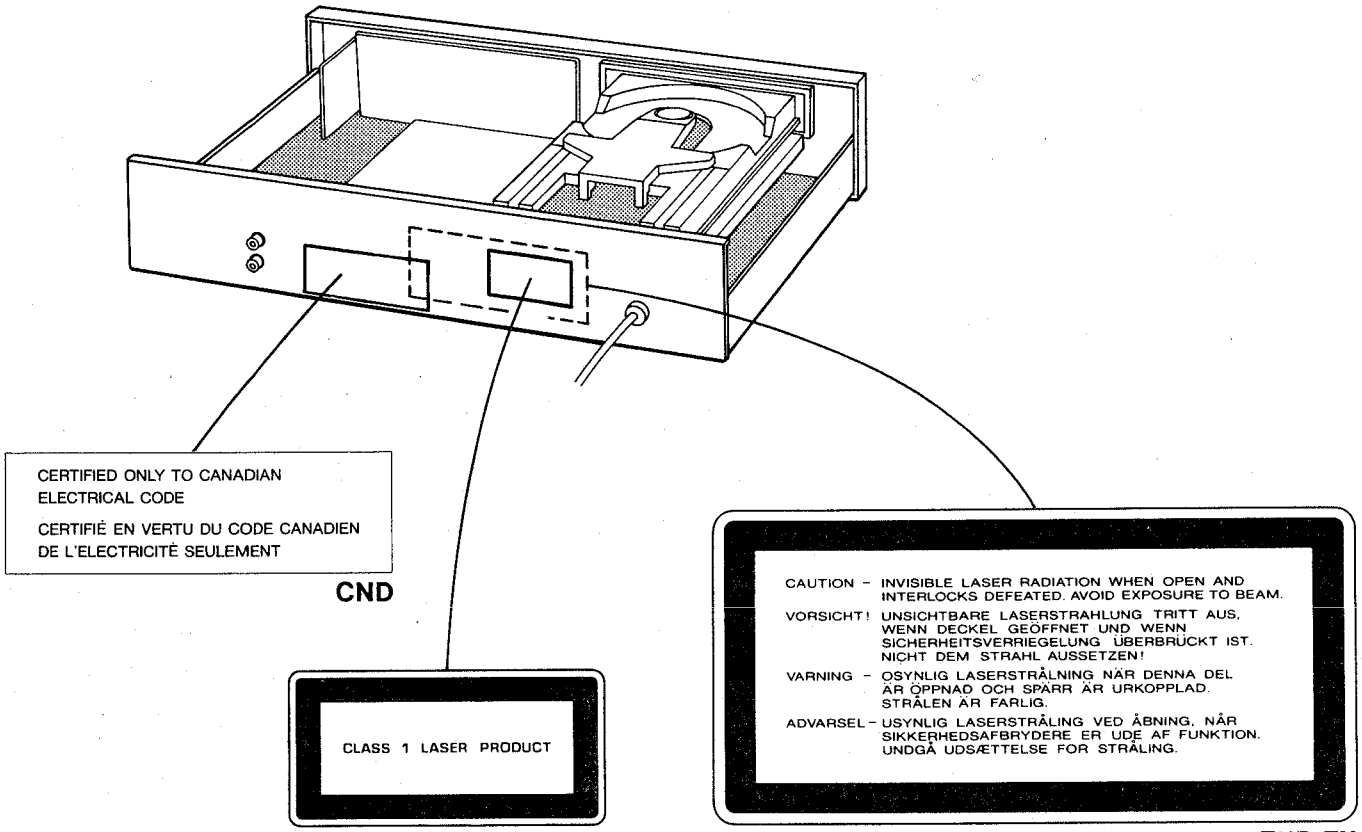
SPECIFICATIONS

DIGITAL COMPACT DISC PLAYER	780CD/880CD
System	Compact disc digital audio system
AUDIO CHARACTERISTICS Frequency Response	20Hz－18kHz±1dB
Harmonic Distortion	Less than 0.07% (1kHz)
S/N Ratio (FLAT)	More than 80dB
Wow and Flutter	Unmeasurable
Channel Separation	More than 75dB (1kHz)
Output Voltage max.	2 Vrms±1.5dB (1kHz)
Headphone Output Voltage max.	75mV (Ro＝8Ω)
FUNCTIONS Instant Selection	Sequential, with F.F and F.B buttons
Search	Sequential, with SEARCH ▶▶ and SEARCH ◀◀
Fast-Forward/Back	Fast-forward/back with sound
Program Functions	20 selections
Repeat	All selections or one selection
Reset	Press STOP button twice
Pause	Each selection
Time Display	Elapsed Time Remaining Time (880CD only) (Press DISPLAY button on the REMOTE CONTROL unit in turn)
Disc Loading	Motor driven horizontal loading
DIGITAL SIGNAL PROCESSING Optical Pickup	3-beam laser
Error Correction	CIRC
Sampling Frequency	44.1 kHz
D/A Conversion	16-bit Dual D/A converter
Filter	4-times Oversampling digital filter +2 order analog filter
Digital Output Voltage (coaxial)	0.5Vp-p
GENERAL Power Requirements (50Hz)	120V AC±10%(for CND) 220V AC±10%(for EUR) 9 Watts 110V/220V AC±10%(for EX)
Dimensions (W×H×D)	435×90×290mm
Weight (approx.)	3.4kg (780CD) 3.5kg (880CD)

Design and specifications are subject to change without notice for improvements.

SAFETY CERTIFICATION

This Compact Disc Player is made and tested to meet exacting safety standards.

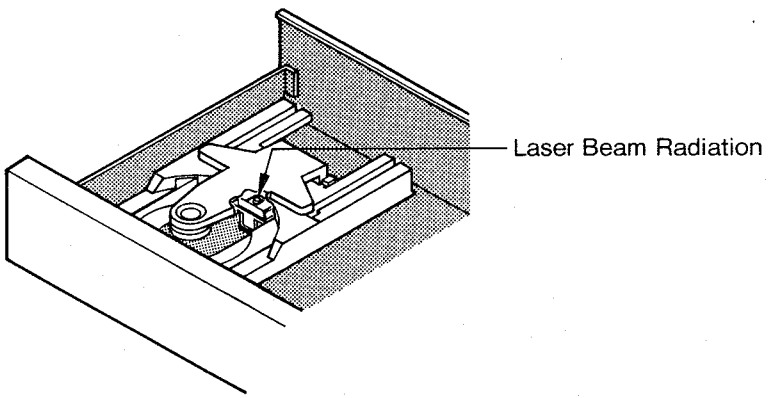

CERTIFIED ONLY TO CANADIAN ELECTRICAL CODE
CERTIFIÉ EN VERTU DU CODE CANADIEN DE L'ELECTRICITÉ SEULEMENT
CND
CLASS 1 LASER PRODUCT
CAUTION - INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
VORSICHT! UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT DEM STRAHL AUSSETZEN!
VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.
ADVARSEL - USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
EUR,EX

CAUTION – USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

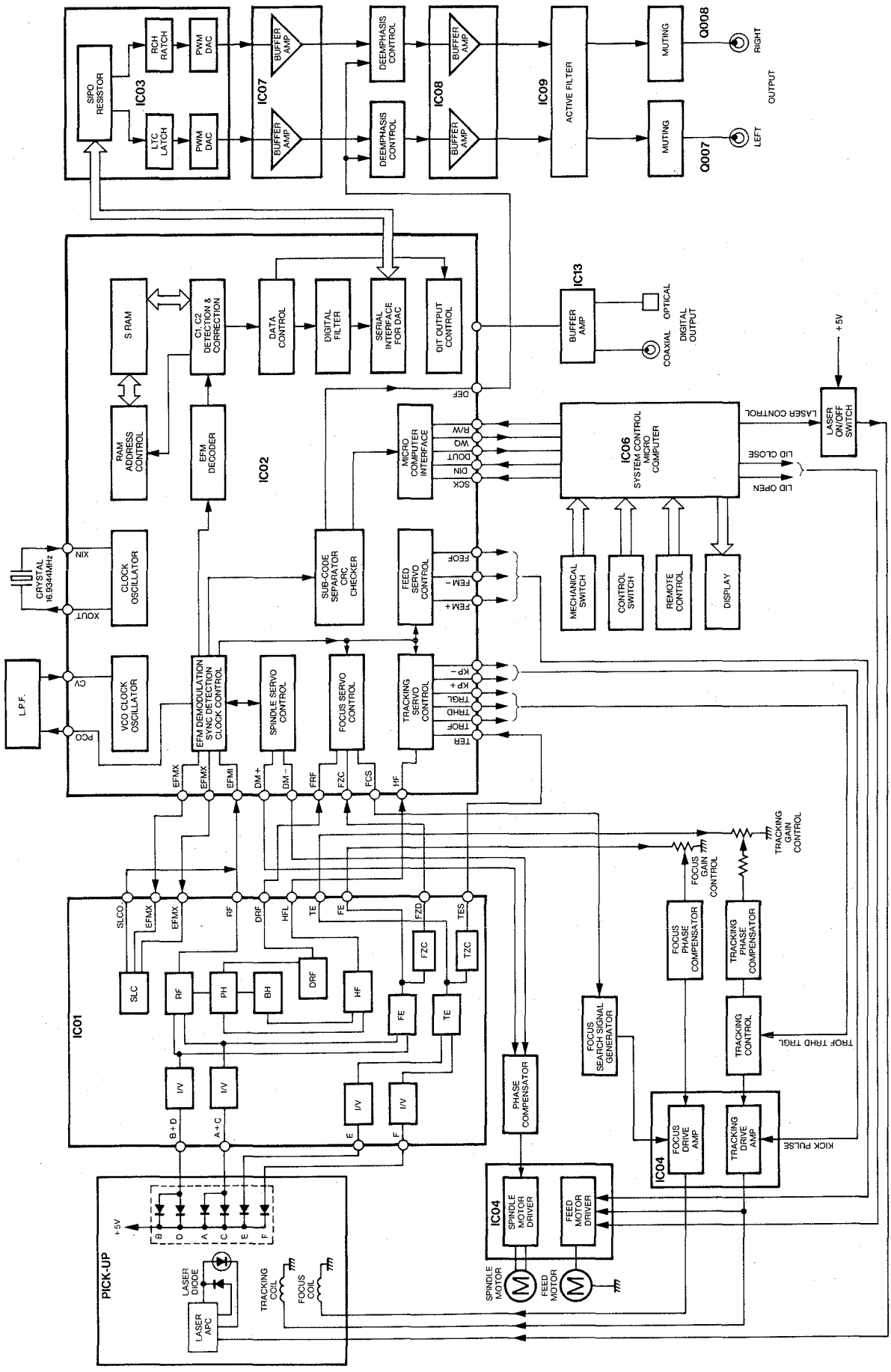
THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIREDBY ANYONE EXCEPT QUALIFIED SERVICE PERSONNEL.

LASER BEAM RADIATION SPOT

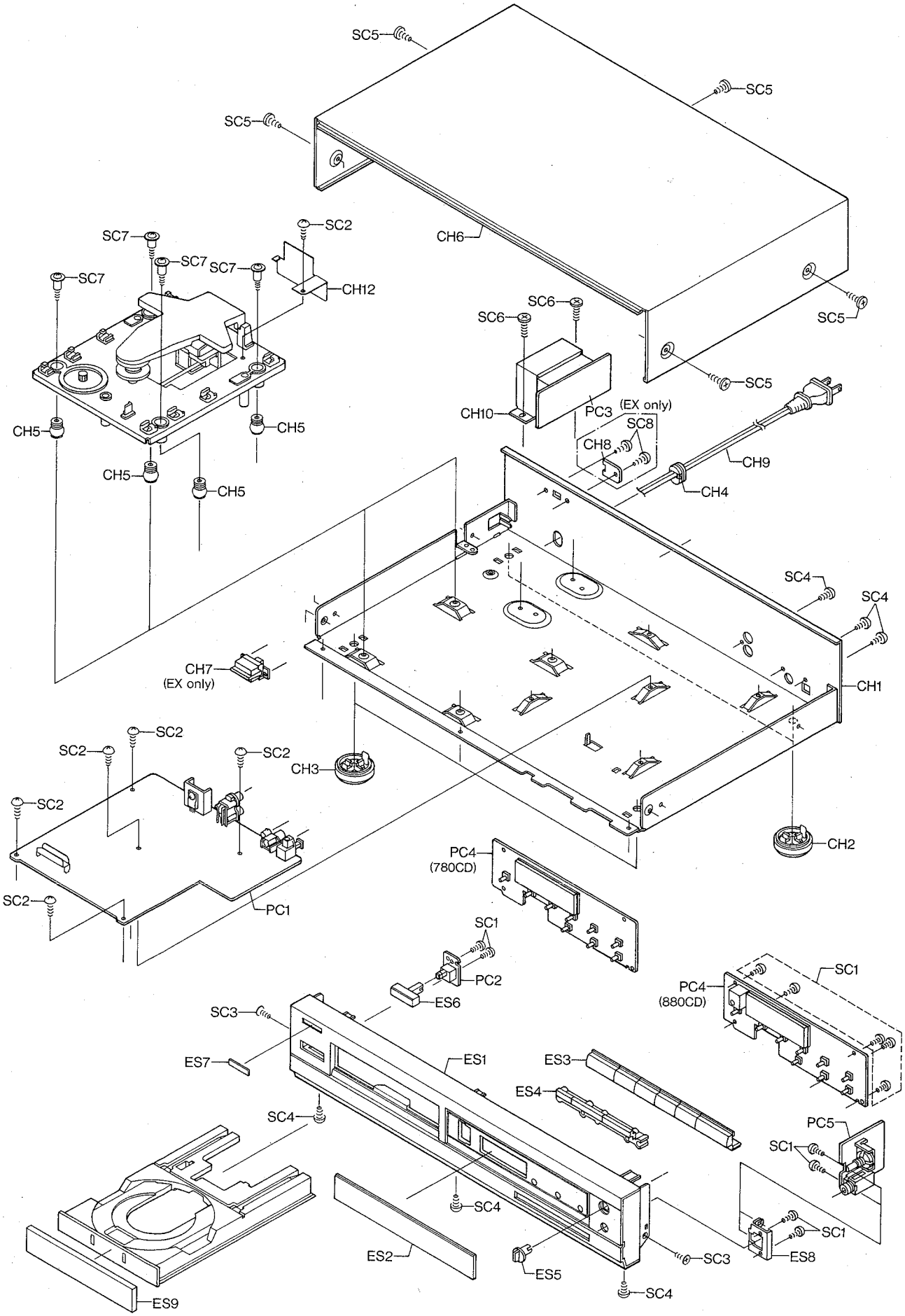
Laser Diode Properties
Material: Ga-Al-As
Wavelength: 755-815nm (25°C)
Laser Output: Continuous Wave max. 0.7mW



FUNCTIONAL BLOCK DIAGRAM



CABINET EXPLODED VIEW



CABINET PARTS LIST

Ref. No.	Part No.	Description	780CD			880CD				
			CND	EUR	EX	CND	EUR	EX		
		PACKAGE								
	6K410X3500	PAD ASSY (F)	1	1	1	1	1	1		
	6K410X3501	PAD ASSY (R)	1	1	1	1	1	1		
	H49227000	PAD	1	1	1	1	1	1		
	6K210X3500	CARTON	1	1	1	1	1	1		
	14162519164900	SHEET POLYETHYLENE	1	1	1	1	1	1		
		ACCESSORY								
	6P100X0679	MANUAL	1			1				
	H50215090	MANUAL		1	1					
	H510215060	MANUAL					1	1		
	42369741300	PLUG CORD RCA	1	1	1	1	1	1		
	13162719104010	BAG FAN	1	1	1	1	1	1		
	4U100X0400	REMOCON				1	1	1		
		CHASSIS								
CH1	23110X0610	CHASSIS	1	1		1	1			
CH1	23110X0611	CHASSIS			1			1		
CH2	22510X1001	LEG	2	2	2	2	2	2		
CH3	22510X1002	LEG	2	2	2	2	2	2		
CH4	13126111142000	BUSHING	1	1	1	1	1	1		
CH5	14124459473000	CUSHION RUBBER	4	4	4	4	4	4		
CH6	21210X0600	COVER	1	1	1	1	1	1		
⚠ CH7	42312026500	SW SLIDE 3P			1			1		
CH8	13127104005000	PLATE PAD SWITCH			1			1		
⚠ CH9	42439203900	POWER CORD	1			1				
⚠ CH9	42432005000	POWER CORD		1	1		1	1		
⚠ CH10	4L500X2031	POWER TRANS	1			1				
⚠ CH10	4L500X2040	POWER TRANS		1			1			
⚠ CH10	4L500X2070	POWER TRANS			1			1		
CH11	13123608141000	CRAMP WIRE	1	1	3	1	1	3		
CH12	24620X4200	SHEET	1	1	1	1	1	1		
	6P400X3004	LABEL RATING	1							
	6P400X3802	LABEL RATING		1						
	6P400X3108	LABEL RATING			1					
	6P400X3005	LABEL RATING				1				
	6P400X3803	LABEL RATING					1			
	6P400X3109	LABEL RATING						1		
	H48981000	STANDARD LABEL	1			1				
	H49028000	LABEL, CAUTION	1			1				
	13164159402000	NOTES (LASER)		1	1		1	1		
	H50178000	LABEL			1			1		
	6P490X3500	LABEL	1	1	1	1	1	1		
		ESCUTCHEON								
ES1	21410X1502	ESCUTCHEON	1	1	1					
ES1	21410X1503	ESCUTCHEON				1	1	1		
ES2	21640X1400	WINDOW	1	1	1					
ES2	21640X1401	WINDOW				1	1	1		
ES3	21750X5800	BUTTON	1	1	1	1	1	1		
ES4	D32202120	KNOB C	1	1	1	1	1	1		
ES5	D49348000	KNOB	1	1	1	1	1	1		
ES6	D49923000	KNOB POWER	1	1	1	1	1	1		
ES7	21630X1600	BADGE	1	1	1	1	1	1		
ES8	A49835000	ANGLE MOUNT	1	1	1	1	1	1		

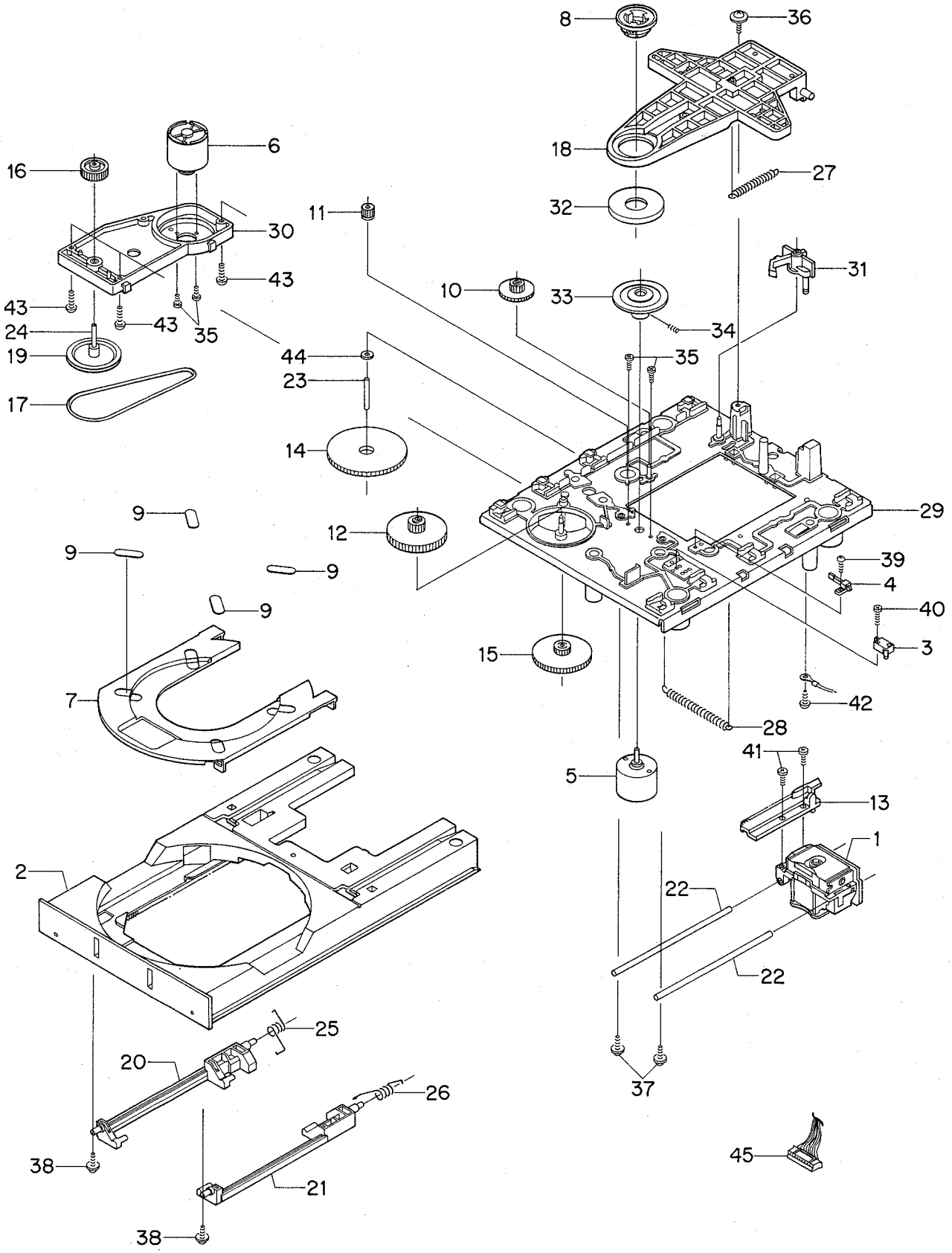
CABINET PARTS LIST (Continued)

Ref. No.	Part No.	Description	780CD			880CD				
			CND	EUR	EX	CND	EUR	EX		
ES9	D49854160	COVER DECORATE	1	1	1	1	1	1		
		P.C.B. ASSY								
PC1	OB100X5810	MAIN P.C.B. ASSY	1	1	1	1	1	1		
PC2	OB100X5820	SWITCH P.C.B. ASSY	1	1	1	1	1	1		
PC3	OB100X5830	TRANS P.C.B. ASSY	1			1				
PC3	OB100X5831	TRANS P.C.B. ASSY		1			1			
PC3	OB100X5833	TRANS P.C.B. ASSY			1			1		
PC4	OB100X5840	CONTROL P.C.B. ASSY	1	1	1					
PC4	OB100X5841	CONTROL P.C.B. ASSY				1	1	1		
PC5	OB100X3300	HEADPHONE P.C.B. ASSY	1	1	1	1	1	1		
		SCREW								
SC1	SFBAN266ROSE-	S-TPG BRZ 2.6×6	11	11	11	11	11	11		
SC2	SFBAN306ROSE-	S-TPG BRZ 3×6	6	6	6	6	6	6		
SC3	SFBFN306ROSE-	S-TPG FLT 3×6	2	2	2	2	2	2		
SC4	SFBAN308ROSM-	S-TPG BRZ 3×8	6	6	6	6	6	6		
SC5	SFBDN308ROSM-	S-TPG BIN 3×8	5	5	5	5	5	5		
SC6	SFBDN406ROSE-	S-TPG BIN 4×6	2	2	2	2	2	2		
SC7	23810X1400	SCREW	4	4	4	4	4	4		
SC8	SM2PN308ROSE-	PAN 3×8			2			2		

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

MECHANISM EXPLODED VIEW



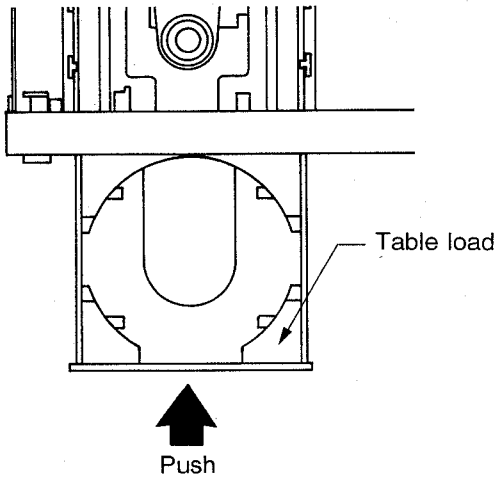
MECHANISM PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	C49862020	**MECHANISM (CD86F2-A)**	
1	IEA0A41A02000	Pick-up Assy SF-90EC	1
2	D498780000	Table Load	1
3	42312070100	Lever Switch 1PIT (SW101)	1
4	42319741700	Leaf Switch (SW102)	1
5	4M100X2000	Spindle Motor	1
6	45279717610	Motor	1
7	14121149648000	Table CD	1
8	14123519838000	Holder Disk	1
9	14124459513000	Pad Disk	4
10	14125519818000	Gear Pick-up	1
11	14125519819000	Gear Motor	1
12	14125519822000	Gear Table Load	1
13	14125519823000	Gear Pick-up Rack	1
14	14125519878000	Gear Load Pick-up	1
15	14125519879000	Gear Load T.L	1
16	14125519880000	Gear	1
17	14125649336000	Belt	1
18	14126229020000	Flap Disk Cramp	1
19	14126619086000	Pulley	1
20	14127429122000	Lever Hold Disk L	1
21	14127429123000	Lever Hold Disk R	1
22	14127519883000	Shaft Pick-up	2
23	14127519884000	Shaft Gear S	1
24	14127519912000	Shaft Pulley	1
25	14128529529000	Spring Lever Left	1
26	14128529530000	Spring Lever Right	1
27	14128549438000	Spring Frap Disk CR	1
28	14128549439000	Spring Arm	1
29	14103119286000	Chassis Assy	1
30	14103129031000	Chassis Sub Assy	1
31	14105559087000	Arm Assy	1
32	C50164000	Magnet Assy	1
33	14105229003000	Turntable Assy	1
34	14124219367000	SET Screw, V-CONE, M2.0×4	1
35	SE3PN173R0SM-	Screw, Pan Hd. Precision-3, +M1.7×3	4
36	13124201283000	Screw, Sems. Brazier Hd. Tapping-B, +M3.0×10	1
37	14124219427000	Screw, Pan Hd. Tapping-B, +M2.6×6	2
38	13124201282010	Screw, Sems. Brazier Hd. Tapping-B, +M3.0×8	2
39	SFBPN206R0SE-	Screw, Pan Hd. Tapping-B, +M2.0×6	1
40	ST3PN17100SM-	Screw, Pan Hd. Tapping-1, +M1.7×10	1
41	SF3FN205R0SA-	Screw, Flat Hd. Precision-3, +M2.0×5	2
42	SFBAN306R0SE	Screw, Brazier Hd. Tapping-B, +M3.0×6	1
43	SFBAN26140SE-	Screw, Brazier Hd. Tapping-B, +M2.6×14	3
44	14124539143000	Washer, M7	1
45	4J130X2100	Connector 9P Assy	1

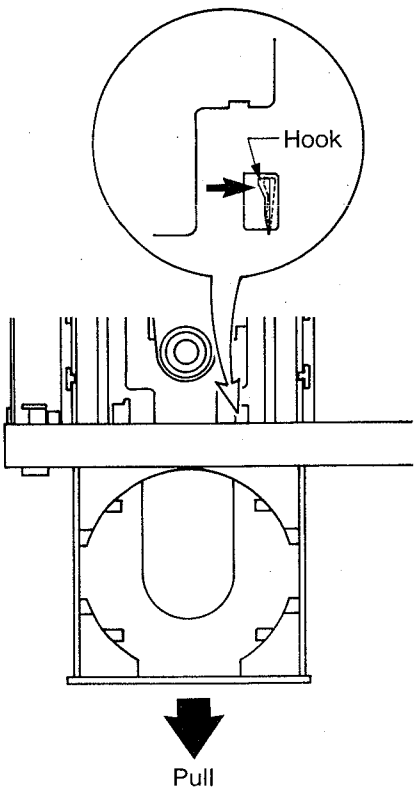
DISASSEMBLY INSTRUCTIONS

REMOVING THE DISC TRAY

1. Apply Power Switch to the set and press the OPEN/ CLOSE button to open the table load.
2. Apply OFF the Power Switch while the table load is open, and push the table load back in by hand to close it.

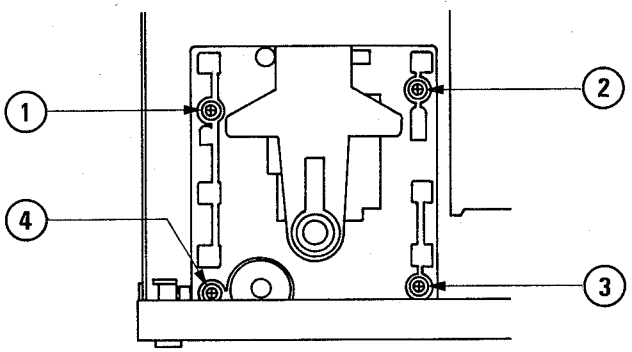


3. Pull out the table load by hand to open it again. The table load will disengage easily and come out smoothly.
4. Now remove the table load from the cabinet while pressing the tab in the direction of the arrow in the diagram below.



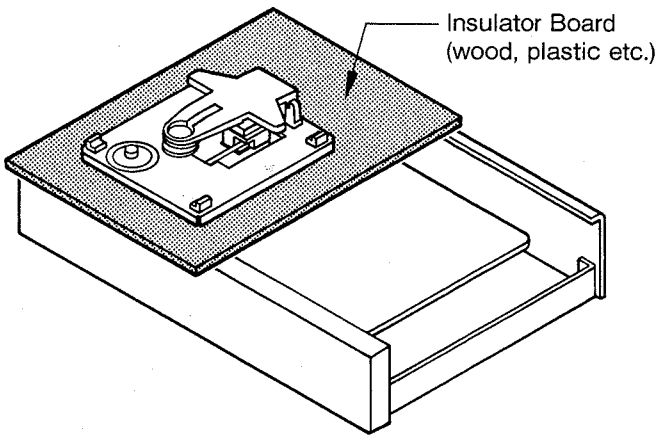
REMOVING THE MECHANISM

1. Take out the eight screws with which the Cabinet Front is mounted in place and remove the Cabinet Front.
2. Take out the four screws (1~4 in the diagram below) with which the mechanism is mounted in place and remove the mechanism.



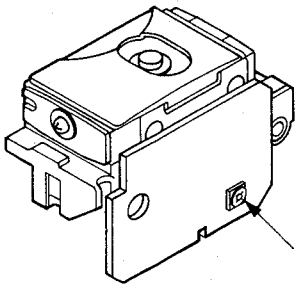
ADJUSTMENT PROCEDURES

CAUTION:
Avoid eye exposure to invisible laser beam which is emitted from laser pickup.



PRECAUTIONS REGARADING ADJUSTMENT

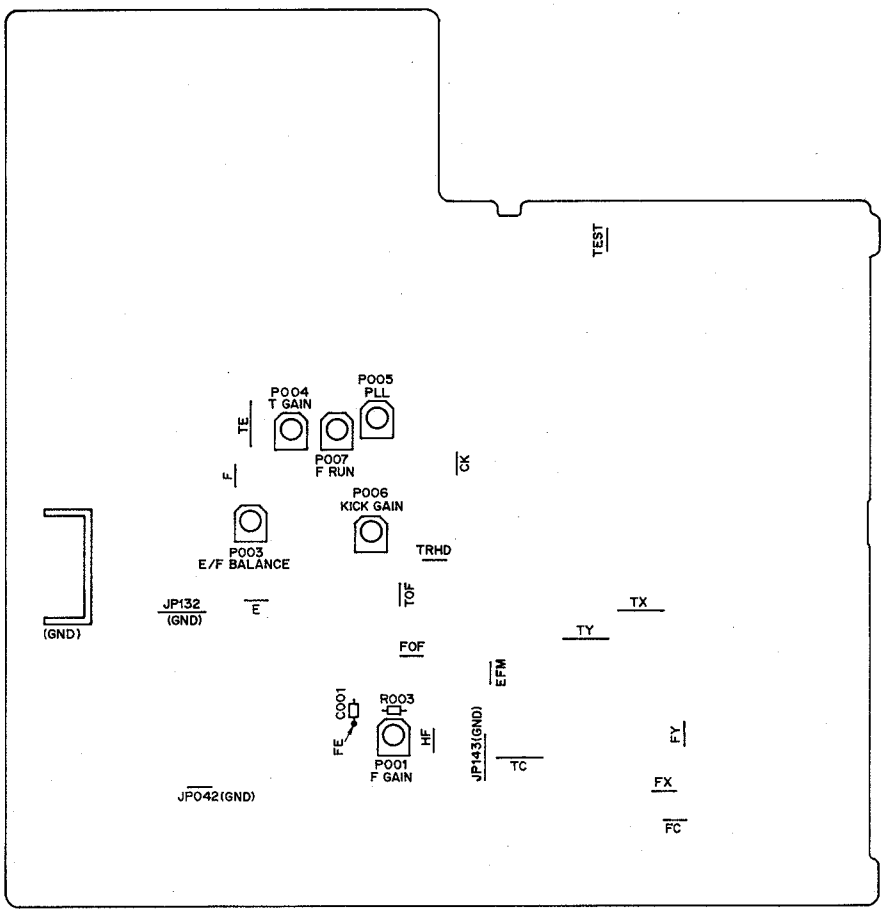
- Adjustment is performed in the indicated order.
- When adjustment is made for one item, check the other items which follow.
- The laser pick-up has already been precisely adjusted. Do not touch its mounting screws or controls.



- When the diffraction grid is adjusted, remove the mechanism. It is convenient to place an insulating panel on top of the chassis, and then to place the mechanism on top of this. (The wires are connected.)

- Refer to the adjustment diagram for the test points and adjustment controls.
- The ground point for the measurement equipment is the test point indicated as **GND**.

  ground point of P.C.BORD:
  JP042, JP132, JP143



ADJUSTMENT PROCEDURES(Continued)

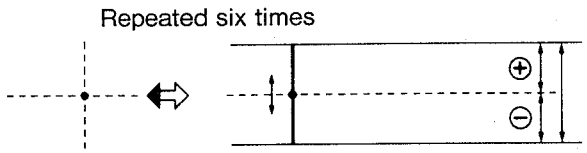
REQUIRED EQUIPMENTS

- DC Voltmeter
- Dualtrace Oscilloscope
- Frequency Counter
- Signal Generator
- Plastic Screwdriver
- Diffraction Grating Adjustment Jig
- Test Disc (SONY: YEDS4, SANYO: MODERN WAVE II)

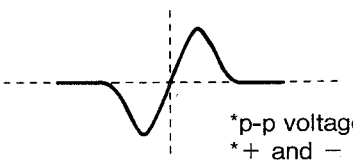
CHECKING FOCUS ERROR SIGNAL

Checking the focus error signal of the pick-up allows for an evaluation of the pick-up. Be sure this is carried out before repair.

1. Turn on the power and set the unit to the STOP mode.
2. Connect an oscilloscope between jumper **C001 (FE)** and **GND**. (Set the time axis to 0.5 seconds/division.)
3. Connect **R003 (FOF)** to **GND**.
4. Press the OPEN/CLOSE button and place the test disc YEDS4 on the table load. Press the OPEN/CLOSE button again.
5. The waveform shown below is displayed six times on the oscilloscope when the table load closes. Check that the p-p voltage is about 8V and that the top and bottom of the waveform are symmetrical.



(When recorded on a memory scope)



6. The waveform appears again if the OPEN/CLOSE button is pressed again. This allows for confirmation to be made. The pick-up is faulty if confirmation cannot be made.

SETTING OF INITIAL POSITION OF VOLUME

1. The variable resistors are set to the following initial positions.

P001 (FOCUS GAN) .....Mechanical center
P003 (E-F BALANCE).....Mechanical center
P004 (TRACKING GAIN) .....Mechanical center
P005 (VPLL) .....Mechanical center
P006 (KICK GAIN).....Mechanical center
P007 (PLL) .....Mechanical center

VOLTAGE PLL ADJUSTMENT

1. Turn on the power and set the unit to the STOP mode.
2. Connect a DC voltmeter between + and − lead of **C019**.
3. Adjust **P005** so that the DC voltmeter indicates 3.95V.

FREE RUN FREQUENCY ADJUSTMENT

1. Turn on the power and set the unit to the STOP mode.
2. Connect the frequency counter between jumper **CK** and **GND** (use probes 10 : 1).
3. Adjust **P007** so that the frequency counter indicates 4.3218MHz.

FOCUS OFFSET CONFIRMATION

1. Turn on the power and set the unit to the STOP mode.
2. Connect a DC voltmeter and oscilloscope between jumper **FC** and **GND**.
3. Short jumper **FOF** and **GND**.
4. Confirm that the indication on the DC voltmeter is –0.7 ~ –1.5V.

TRACKING OFFSET CONFIRMATION

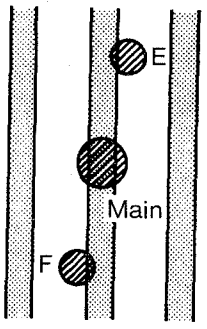
1. Turn on the power and set the unit to the STOP mode.
2. Connect a DC voltmeter and oscilloscope between jumper **TC** and **GND**.
3. Short jumper **TOF** and **GND**.
4. Confirm that the indication on the DC voltmeter is –50mV ~ –250mV.

NOTE:
This adjustment should be made again after the adjustment of Tracking Gain and E-F balance.

ADJUSTMENT PROCEDURES(Continued)

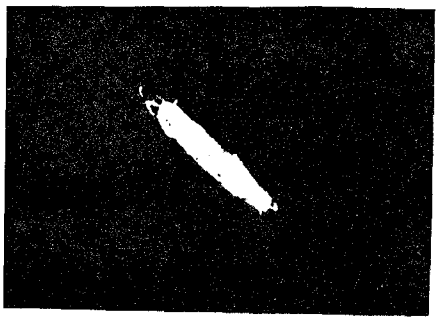
OBSERVATION OF DIFFRACTION GRID

This unit uses a three beam method for the laser pick-up. The position of the E and F beams of provided pick-up is adjusted in relation to the main beam so that they are in the same line.

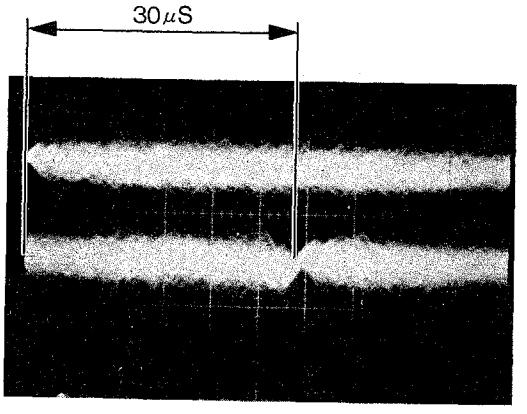


The following is the observation procedure. Carefully check when pick-up is replaced.

1. Press the PLAY button. Short jumper **TEST** and **GND**, and jumper **TX** and **GND** so that tracking servo is off.
2. Connect the dualtrace oscilloscope, jumper **E** to CH1 and jumper **F** to CH2.
3. Place test disc YEDS4 on the table load and press the PLAY button.
4. Observe the lissajous figure of the waveform indicated on the oscilloscope.



5. Press the STOP button. Remove the short between jumper **TEST** and **GND**, and jumper **TX**.
6. Observe the waveform of the signal between jumper **E** and jumper **F** using the dualtrace oscilloscope (Monitored in ALT mode). The beam **E** and **F** are in the same pit line if the trigger of waveform **F** is approximately 30μs behind the point (Positon where waveform hollows out) where the waveform **E** is triggered.

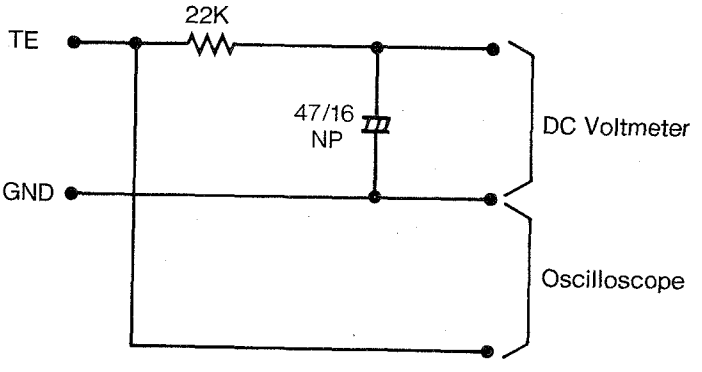


The two beams are on the same pit line.
(100mV/DIV: 5μSec/DIV)

When observation of the waveform is difficult, the trigger level can be varied.

E-F BALANCE ADJUSTSMENT

1. Turn on the power. Short jumper **TEST** and **GND**, and jumper **TX** and **GND** so that tracking servo is off.
2. Place test disc MODERN WAVE II on the table load.
3. Connect a DC voltmeter and oscilloscope to jumper **TE** and **GND** through the low-pass filter shown below.



4. Press the PLAY button.
5. Adjust **P003** so that the DC voltmeter and oscilloscope is minimum voltage (wave form on oscilloscope is symmetrical to 0V line).

ADJUSTMENT PROCEDURES(Continued)

CONFIRMING JITTER

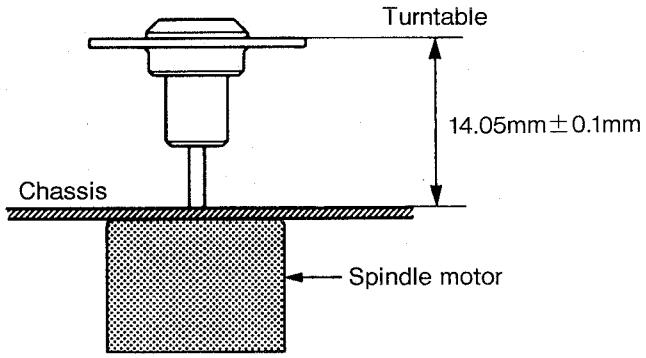
This procedure can be omitted in the case that no jitter counter is equipped.

1. Turn on the power and mount test disc MODERN WAVE II on the table load, and play the fourth program of the disc.
2. Connect an oscilloscope to jumper **HF** and **GND**, and observe the indication is 2.0 ~ 3.3Vp-p.
3. Connecting the jitter counter to jumper **EFM**, make sure that the value of 3T is less than 20nSec.
   (WINDOW WIDTH:600 ~ 850nSec, SET LEVEL: 2.5V)
4. Play tenth program of the disc and observe in the same procedure.

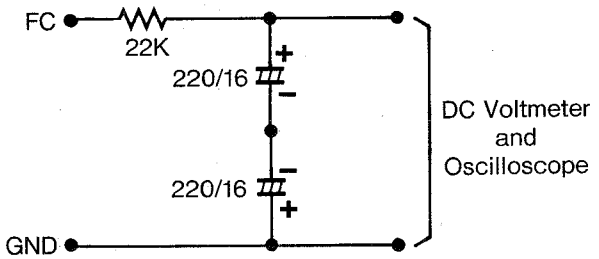
ADJUSTMENT OF TURNTABLE HEIGHT

This adjustment must be made when the motor is replaced.

1. Attach the turntable so that its top surface is 14.05mm ±0.1mm from the top of the chassis.



2. Connect test jumper **FC** to a DC voltmeter and oscilloscope through the low-pass filter.



3. Turn on the power and playback the first selection on test disc MODERN WAVE II.
4. Readjust the height of the turntable if the reading on the DC voltmeter is not in the range of below.

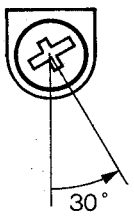
   INSIDE (first selection): 0V±0.2V
   OUTSIDE (tenth selection): 0V±0.35V
   Adjusting turntable height by 0.55 ~ 0.65mm shift voltage by 1V.

ADJUSTMENT OF FOCUS/TRACKING GAIN

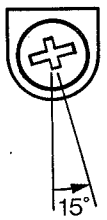
The measurement circuit shown the next page is necessary for accurate adjustment of the focus and tracking gain. If this circuit cannnot be made, make adjustments using the simplified procedure.

Simplified adjustment procedure

- **Focus gain adjustment**
  P001 is set to a position 30° from its mechanical center as shown in the diagram below.



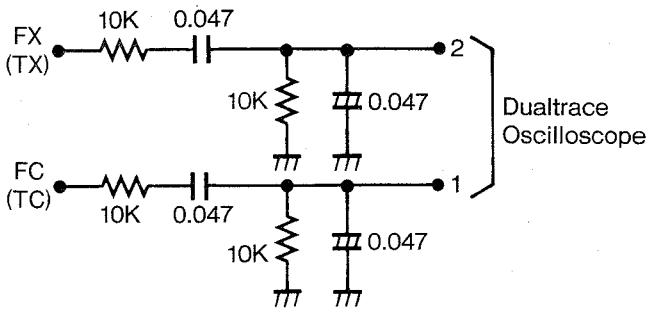
- Tracking gain adjustment
  P004 is set to a position 30° from its mechanical center as shown in the diagram below.



Precise adjustment procedure

- **Focus gain adjustment**

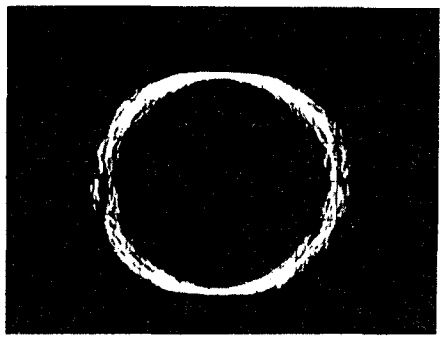
1. Set the variable resistor **P001** to mechanical center.
2. Turn on the power and playback the test disc MODERN WAVE II.
3. Connect jumper **FX** and **FC** to a dualtrace oscilloscope through the filter circuit as shown below.



ADJUSTMENT PROCEDURES(Continued)

4. Aplly a 550Hz 0.3Vp-p signal from the signal generator to jumper **FY**.

5. Observe the resurge waveforms on the oscilloscope, and adjust **P001** so that the phase difference of outputs X and Y from the measurement circuit is 90° as shown below.



- **TRACKING GAIN adjustment**

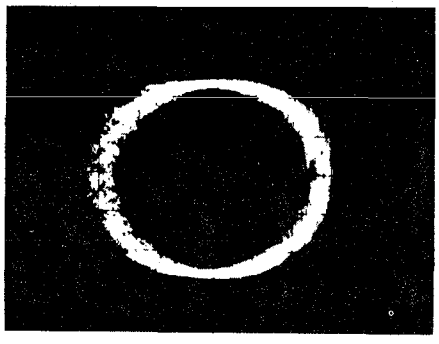
1. Set the variable resistor **P004** to mechanical center.

2. Playback the test disc MODERN WAVE II.

3. Connect jumper **TX** and **TC** to a dualtrace oscilloscope through the filter circuit as same as ADJUSTMENT OF FOCUS GAIN.

4. Apply a 1.6kHz 0.3Vp-p signal from the signal generator to jumper **TY**.

5. Observe the resurge waveforms on the oscilloscope, and adjust **P004** so that the phase difference of outputs X and Y from the measurement circuit is 90° as shown below.



ADJUSTMENT OF KICK GAIN

1. Place the test disc MODERN WAVE II on the turntable.

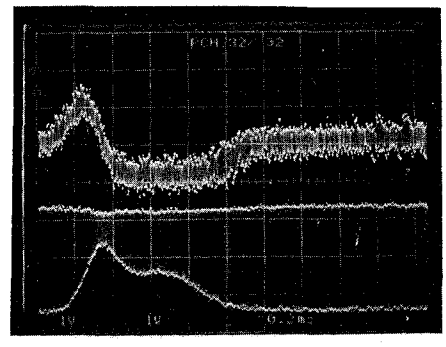
2. Set the oscilloscope at the NORMAL TRIG. and connect jumper **TRHD** to the external trigger terminal. Then, connect the channels, 1 and 2, to the jumper, **HF** and **TE**, respectively.

3. Switch on the power. In the state of playing the first tune, make it pause and observe the waveforms of **HF** and **TE** triggered by **TRHD**.

4. Adjust the **P006** so that the waveform is observed, for making a track jump between 1 and 1.5 track.

TE (1V/DIV 0.2mSec/DIV)

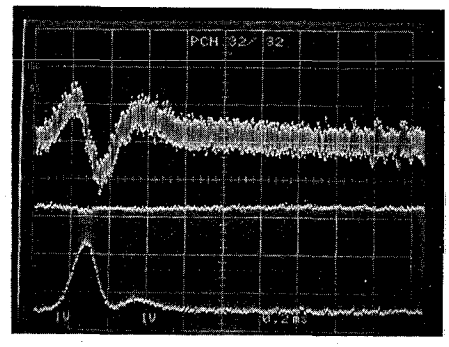
HF (1V/DIV 0.2mSec/DIV)



Waveform showing Short Kick Gain

TE (1V/DIV 0.2mSec/DIV)

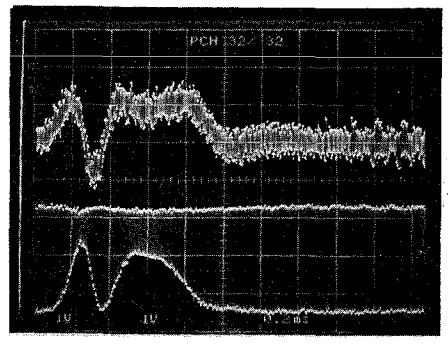
HF (1V/DIV 0.2mSec/DIV)



Waveform showing Proper Kick Gain

TE (1V/DIV 0.2mSec/DIV)

HF (1V/DIV 0.2mSec/DIV)



Waveform showing Excessive Kick Gain

CONFIRMATION OF ACCESS MOVEMENT

Shift the PLL FREQUENCY 4.3218MHz by ±50kHz (4.2700 ~ 4.3700MHz), and check search operation is adequate, while searching first selection through the last repeatedly. Readjust the PLL FREQUENCY 4.3218MHz.

SAFETY INTERLOCK

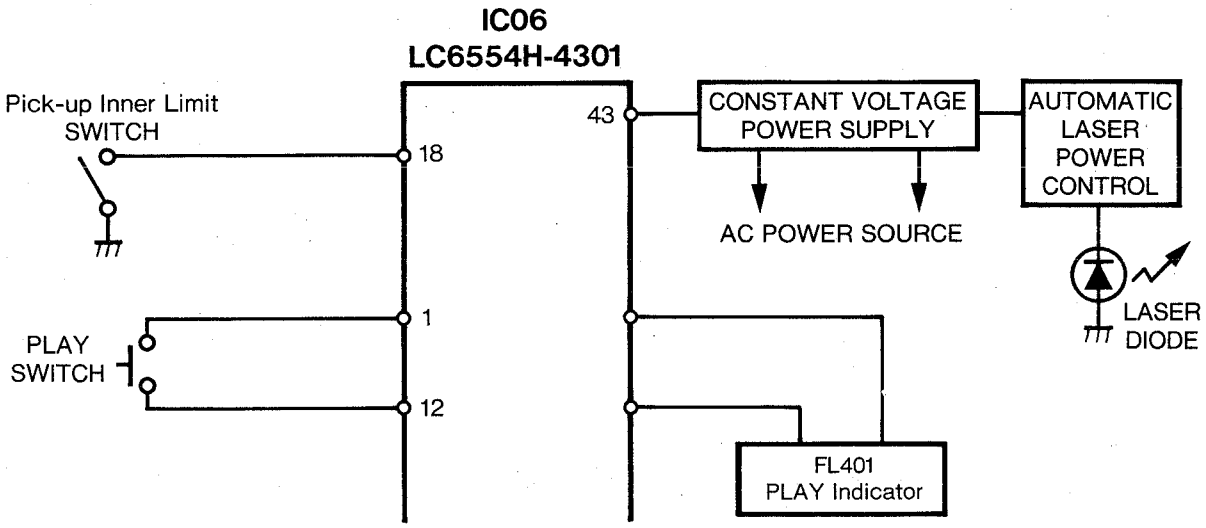
The Digital Compact Disc Player reads the disc signal by detecting the laser beam. It must be avoided for the human body to directly receive the beam. Especially human eyes are badly affected by the beam. Therefore, the unit is equipped with an interlock to prevent the unnecessary laser outputs.

The laser outputs are controlled by the injection or cutoff of the constant voltage source to the laser diode with Pin 43 of IC06 (LC6554H-4301). When Pin 43 is in "L" (Low) level, the laser emits the beam. When Pin 43 is in "H" (High) level, the laser does not emit the beam.
Pin 43 is set in "H" level when the unit is loaded with the disc and it reads the index signals or when the unit is set in the play mode after that. When the unit reads the index signals and the following two conditions are met, the laser emits the beam.

1) When the Pick-up Inner Limit Switch is on. (The disc tray is closed.)
2) The pickup is located at the area of the minimum internal circumference.

After the above conditions are met and the index signals have been read, the laser emits the beam when the following two conditions are met.

1) When the PLAY button is pressed.
2) When the PLAY indicator is on.



P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description				Q'ty
PC1	**OB100X5810**	**MAIN P.C.B. ASSY**				
	4B100X5810	PCB MAIN				1
	13126201215000	PLATE HEAT SINK				1
	13126201400000	PLATE HEAT SINK				1
T001	1EA4L13A00100	TRANS, PULSE				1
JK04	4U230X0100	CONVERTER				1
	30031000190000	TNW 0.6				78
	30031000220000	TNW 0.6				52
	33810500000000	SOLDER				
	52010900001180	SILICON G 746				
	5801CEME575---	CEMEDINE 575				
	SFBAN308R9SE-	S-TPG BRZ 3×6				1
	14124729050000	STAPLE 5				1
	5801CEME575---	CEMEDINE 575				1
C001	CC1H680JFAGNA	CERAM	68P	J	50V	1
C002	CE1HR47MDFALC	ELECT	0.47μ	M	50V	1
C003	CK1H181KFABNA	CERAM	180P	K	50V	1
C004	CC1H680JFAGNA	CERAM	68P	J	50V	1
C005	CP1HR47MBAALC	NP-EL	0.47μ	M	50V	1
C005	CP1HR47MBBALC	NP-EL	0.47μ	M	50V	1
C005	CP1HR47MBRALC	NP-EL	0.47μ	M	50V	1
C006	CE1C100MDFALC	ELECT	10μ	M	16V	1
C007	CB1C103MFAGNA	CERAM	0.01μ	M	16V	1
C008	CC1H2ROCABGLC	CERAM	2P	C	50V	1
C009	CC1H100DABGLC	CERAMC	10P	D	50V	1
C010	CE1C100MDFALC	ELECT	10μ	M	16V	1
C011	CC1H330JFAGNA	CERAM	33P	J	50V	1
C012	CC1H330JFAGNA	CERAM	33P	J	50V	1
C013	CB1C103MFAGNA	CERAM	0.01μ	M	16V	1
C014	CK1H102KFABNA	CERAM	1000P	K	50V	1
C015	CH1H154JAAALC	MT-CO	0.15μ	J	50V	1
C016	CP1HR47MBRALC	NP-EL	0.47μ		50V	1
C016	CP1HR47MBAALC	NP-EL	0.47μ		50V	1
C016	CP1HR47MBBALC	NP-EL	0.47μ		50V	1
C017	CK1H471KFABNA	CERAM	470P	K	50V	1
C018	CP1HR47MBRALC	NP-EL	0.47μ		50V	1
C018	CP1HR47MBAALC	NP-EL	0.47μ		50V	1
C018	CP1HR47MBBALC	NP-EL	0.47μ		50V	1
C023	CK1H103ZAFFLC	CERAM	0.01μ		50V	1
C019	CE0J101MDFALC	ELECT	100μ	M	6.3V	1
C020	CE1E4R7MDFALC	ELECT	4.7μ	M	25V	1
C021	CB1E333KADRLC	CERAM	0.033μ	M	25V	1
C022	CKXEA0040000A	CERAM	0.1μ	Z	50V	1
C023	CK1H103ZAFFLC	CERAM	0.01μ	Z	50V	1
C025	CK1H101KFABNA	CERAM	100P	K	50V	1
C026	CE1E4R7MDFALC	ELECT	4.7μ	M	25V	1
C029	CB1C103MFAGNA	CERAM	0.01μ	M	16V	1
C030	CC1H300JABCLC	CERAM	30P	J	50V	1
C031	CC1H300JABCLC	CERAM	30P	J	50V	1
C032	CB1C223NFCGNA	CERAM	0.022μ	N	16V	1
C036	CE0J221MDFALC	ELECT	220μ	M	6.3V	1
C037	CK1H103ZAFFLC	CERAM	0.01μ	Z	50V	1
C040	CB1C223NFCGNA	CERAM	0.022μ	N	16V	1
C042	CP1C4R7MBAALC	NP-EL	4.7μ			1
C042	CP1C4R7MBBALC	NP-EL	4.7μ	M	16V	1
C042	CP1C4R7MBRALC	NP-EL	4.7μ	M	16V	1
C043	CC1H4R7KFAGNA	CERAM	4.7P	K	50V	1
C044	CKXEA0040000A	CERAM	0.1μ	Z	50V	1
C045	CF1H683KANALC	POLY	0.068μ	K	50V	1
C046	CK1H471KFABNA	CERAM	470P	K	50V	1
C047	CH1H104JAAALC	MT-CO	0.1μ	J	50V	1
C048	CKXEA0040000A	CERAM	0.1μ	Z	50V	1
C049	CK1H222KAFBLC	CERAM	2200P	K	50V	1
C050	CP1H1ROMBAALC	NP-EL	1μ	M	50V	1
C050	CP1H1ROMBBALC	NP-EL	1μ	M	50V	1
C051	CE1C100MDFALC	ELECT	10μ	M	16V	1
C052	CP1H1ROMEAALC	NP-EL	1μ	M	50V	1
C052	CP1H1ROMBBALC	NP-EL	1μ	M	50V	1
C053	CP1H1ROMBAALC	NP-EL	1μ	M	50V	1
C053	CP1H1ROMBBALC	NP-EL	1μ	M	50V	1
C054	CF1H123KANALC	POLY	0.012μ	K	50V	1
C055	CF1H123KANALC	POLY	0.012μ	K	50V	1
C056	CK1H222KAFBLC	CERAM	2200P	K	50V	1
C057	CB1C103MFAGNA	CERAM	0.01μ	M	16V	1
C058	CE0J221MDFALC	ELECT	220μ	M	6.3V	1
C059	CE1C100MDFALC	ELECT	10μ	M	16V	1
C060	CE1C100MDFALC	ELECT	10μ	M	16V	1
C061	CE1E4R7MDFALC	ELECT	4.7μ	M	25V	1
C064	CKXEA0040000A	CERAM	0.1μ	Z	50V	1
C066	CK1H102KFABNA	CERAM	1000P	K	50V	1
C067	CE0J101MDFALC	ELECT	100μ	M	6.3V	1
C068	CE0J470MDFALC	ELECT	47μ	M	6.3V	1
C069	CC1H3R3KFAGNA	CERAM	3.3P	K	50V	1
C070	CC1H3R3KFAGNA	CERAM	3.3P	K	50V	1
C071	CE0J470MDFALC	ELECT	47μ	M	6.3V	1
C072	CB1E393KADRLC	CERAM	0.039μ	K	25V	1
C073	CB1E393KADRLC	CERAM	0.039μ	K	25V	1
C074	CE1E4R7MDFALC	ELECT	4.7μ	M	25V	1
C075	CE1E4R7MDFALC	ELECT	4.7μ	M	25V	1
C076	CK1H222KAFBLC	CERAM	2200P	K	50V	1
C077	CK1H222KAFBLC	CERAM	2200P	K	50V	1
C078	CB1E123KADRLC	CERAM	0.012μ	K	25V	1
C079	CB1E123KADRLC	CERAM	0.012μ	K	25V	1
C080	CP1C4R7MBAALC	NP-EL	4.7μ	M	16V	1
C080	CP1C4R7MBBALC	NP-EL	4.7μ	M	16V	1
C080	CP1C4R7MBRALC	NP-EL	4.7μ	M	16V	1
C081	CP1C4R7MBAALC	NP-EL	4.7μ	M	16V	1
C081	CP1C4R7MBBALC	NP-EL	4.7μ	M	16V	1
C081	CP1C4R7MBRALC	NP-EL	4.7μ	M	16V	1
C082	CK1H152KAFBLC	CERAM	1500P	K	50V	1
C083	CK1H152KAFBLC	CERAM	1500P	K	50V	1
C084	CK1H103ZAFFLC	CERAM	0.01μ	Z	50V	1
C085	CK1H223ZAFFLC	CERAM	0.022μ	Z	50V	1
C086	CK1H102KFABNA	CERAM	1000P	K	50V	1
C087	CK1H103ZAFFLC	CERAM	0.01μ	Z	50V	1
C088	CE1C222MDFANN	ELECT	2200μ	M	16V	1
C089	CE1C222MDFANN	ELECT	2200μ	M	16V	1
C090	CE1V471MDFANN	ELECT	470	M	35V	1
C091	CE1V471MDFANN	ELECT	470	M	35V	1
C092	CE1V220MDFALC	ELECT	22	M	35V	1
C093	CK1H473ZAFFLC	CERAM	0.047μ	M	50	1
C094	CE0J470MDFALC	ELECT	47μ	M	6.3V	1
C095	CE0J470MDFALC	ELECT	47μ	M	6.3V	1
C096	CE0J470MDFALC	ELECT	47μ	M	6.3V	1
C097	CE1C100MDFALC	ELECT	10μ	M	16V	1

P.C.BOARD PARTS LIST(Continued)

Ref. No.	Part No.	Description				Q'ty
C098	CE1E4R7MDFALC	ELECT	4.7μ	M	25V	1
C099	CK1H221KFABNA	CERAM	220P	K	50V	1
C100	CE0J221MDFALC	ELECT	220μ	M	6.3V	1
C101	CB1C103MFAGNA	CERAM	0.01μ	M	16V	1
C102	CE1C100MDFALC	ELECT	10μ			1
C103	CE1H1R0MDFALC	ELECT	1μ	M	50V	1
C104	CC1H470KABGLC	CERAM	47P			1
C105	CC1H470KABGLC	CERAM	47P			1
C112	CK1H221KFABNA	CERAM	220P	K	50V	1
C113	CE0J470MDFALC	ELECT	47μ	M	6.3V	1
C114	CK1H822KAFBLC	CERAM	8200P	K	50V	1
C115	CK1H121KAFBLC	CERAM	120P	K	50V	1
C116	CK1H223ZAFFLC	CERAM	0.022μ	Z	50V	1
C117	CK1H102ZAFFLC	CERAM	1000P	Z	50V	1
C120	CE1E4R7MDFALC	ELECT	4.7μ	M	25V	1
C121	CE1C100MDFALC	ELECT	10V		16V	1
C122	CE1C100MDFALC	ELECT	10V		16V	1
CN01	42369749200	PLUG 6P				1
CN02	42369751200	PLUG 6P				1
CN03	42369759400	PLUG 9P				1
CN04	F49843020	PLUG 7P				1
D001	DD1SS254----A	DI 1SS254				1
D001	DDGMA01-----A	DI GMA01-BT				1
D001	DDWG4148----T	DI WG4148				1
D002	DD1SS254----A	DI 1SS254				1
D002	DDGMA01-----A	DI GMA01				1
D002	DDWG4148----T	DI WG4148				1
D003	DD1SS254----A	DI 1SS254				1
D003	DDGMA01-----A	DI GMA01				1
D003	DDWG4148----T	DI WG4148				1
D005	DD1SS254----A	DI 1SS254				1
D005	DDGMA01-----A	DI GMA01-BT				1
D005	DDWG4148----T	DI WG4148				1
D008	DD1SS254----A	DI 1SS254				1
D008	DDGMA01-----A	DI GMA01-BT				1
D008	DDWG4148----T	DI WG4148				1
D012	DD1SS254----A	DI 1SS254				1
D012	DDGMA01-----A	DI GMA01				1
D012	DDWG4148----T	DI WG4148				1
D013	DD1SS254----A	DI 1SS254				1
D013	DDGMA01-----A	DI GMA01				1
D014	DD1SS254----A	DI 1SS254				1
D014	DDGMA01-----A	DI GMA01				1
D014	DDWG4148----T	DI WG4148				1
D015	DD1SS254----A	DI 1SS254				1
D015	DDGMA01-----A	DI GMA01				1
D015	DDWG4148----T	DI WG4148				1
D016	DD1SS254----A	DI 1SS254				1
D016	DDGMA01-----A	DI GMA01-BT				1
D016	DDWG4148----T	DI WG4148				1
D020	4D600X0400	DI MPG06B				1
D020	4D600X0500	DI 1A2-E				1
D020	DD1D3-E----A	DI 1D3-E				1
D021	4D600X0400	DI MPG06B				1
D021	4D600X0500	DI 1A2-E				1
D021	DD1D3-E----A	DI 1D3-E				1
D022	4D600X0400	DI MPG06B				1

Ref. No.	Part No.	Description	Q'ty
D022	4D600X0500	DI 1A2-E	1
D022	DD1D3-E----A	DI 1D3-E	1
D023	4D600X0400	DI MPG06B	1
D023	4D600X0500	DI 1A2-E	1
D023	DD1D3-E----A	DI 1D3-E	1
D024	4D600X0400	DI MPG06B	1
D024	4D600X0500	DI IAZ-E	1
D024	DD1D3-E----A	DI 1D3-E	1
D025	4D600X0400	DI MPG06B	1
D025	4D600X0500	DI IAZ-E	1
D025	DD1D3-E----A	DI 1D3-E	1
D026	DZMTZJ20A---A	ZD MTZJ20A	1
D027	DZMTZJ7.5A--A	ZD MTZJ7.5A	1
D028	DD1SS254----A	DI 1SS254	1
D028	DDGMA01-----A	DI GMA01	1
D028	DDWG4148----T	DI WG4148	1
D029	DD1SS254----A	DI 1SS254	1
D029	DDGMA01-----A	DI GMA01	1
D029	DDWG4148----T	DI WG4148	1
D030	DZMTZJ5.6B--A	ZD MTZJ5.6B	1
D034	DDGMA01-----A	DI GMA01	1
D034	DDISS254----A	DI 1SS254	1
D034	DDWG4148----T	DI WG4148	1
IC01	QLA9200NM---N	IC LA9200NM	1
IC02	4D610X1700	IC YM7121B	1
IC03	QLC7881-----N	IC LC7881	1
IC04	QFA5205P----N	IC FA5205P	1
IC06	4D610X1800	IC LC6554H4301	1
IC07	QLA6458SS---N	IC LA6458SS	1
IC07	QLA6462S----N	IC LA6462S	1
IC07	QNJM2068S---N	IC NJM2068S	1
IC08	QNJM2068S---N	IC NJM2068S	1
IC08	QUPC4570HA--N	IC UPC4570HA	1
IC09	QLA6458SS---N	IC LA6458SS	1
IC09	QNJM2068S---N	IC NJM2068S	1
IC09	QUPC4570HA--N	IC UPC4570HA	1
IC10	QTA78L006AP-N	IC TA78L006AP	1
IC11	QL78M05-----N	IC L78M05	1
IC11	QNJM78M05A--N	IC NJM78M05A	1
IC11	QNJM78M05FA-N	IC NJM78M05FA	1
IC11	QBA178M05---N	IC BA178M05	1
IC11	QMC7805-----N	IC MC7805	1
IC12	QTA79L006P--N	IC TA79L006P	1
IC13	QMC74HC00---N	IC MC74HC00	1
IC13	QMLC74HC00--N	IC MLC74HC00	1
JK01	42352054600	PIN JACK 2P WH/RED	1
JK03	4J120X0600	PIN JACK 1P ORANGE	1
P001	42229761360	POTENTIOMETER 10KB	1
P001	42229765610	POTENTIOMETER 10KB	1
P003	F49599030	POTENTIOMETER 50KB	1
P004	42229761350	POTENTIOMETER 22KB	1
P004	42229765620	POTENTIOMETER 20KB	1
P005	42229761360	POTENTIOMETER 10KB	1
P006	42229767400	POTENTIOMETER 100KB	1
P006	4R200X0302	POTENTIOMETER 100KB	1
P006	42229761340	POTENTIOMETER 100KB	1

P.C.BOARD PARTS LIST(Continued)

Ref. No.	Part No.	Description	Q'ty
P006	42229765600	POTENTIOMETER 100KB	1
P007	42229761360	POTENTIOMETER 10KB	1
Q001	T2SA608-E-NPC	TR 2SA608-E-NP-AA	1
Q001	T2SA608-F-NPC	TR 2SA608-E-NP-AA	1
Q001	TJA101-Q----C	TR JA101	1
Q002	T2SC536-F-NPC	TR 2SC536-F-NP-AA	1
Q002	T2SC536-G-NPC	TR 2SC536-G-NP-AA	1
Q002	TJC501-Q----C	TR JC501	1
Q003	T2SC536-F-NPC	TR 2SC536-F-NP-AA	1
Q003	T2SC536-G-NPC	TR 2SC536-G-NP-AA	1
Q003	TJC501-Q----C	TR JC501	1
Q004	T2SD1012-G-SC	TR 2SD1012-G-SPA-AC	1
Q005	T2SC536-F-NPC	TR 2SC536-F-NP-AA	1
Q005	T2SC536-G-NPC	TR 2SC536-G-NP-AA	1
Q006	T2SC536-F-NPN	TR 2SC536-F-NP-AA	1
Q006	T2SC536-G-NPN	TR 2SC536-G-NP-AA	1
Q007	T2SD1012-G-SC	TR 2SD1012-G-SPA-AC	1
Q008	T2SD1012-G-SC	TR 2SD1012-G-SPA-AC	1
Q009	T2SC536-F-NPC	TR 2SC536-F-NP-AA	1
Q009	T2SC536-G-NPC	TR 2SC536-G-NP-AA	1
Q009	TJC501-G----C	TR JC501	1
Q010	T2SA608-E-NPC	TR 2SA608-E-NP-AA	1
Q010	T2SA608-F-NPC	TR 2SA608-F-NP-AA	1
Q010	TJA101-Q----C	TR JA101	1
Q011	T2SC3400----C	TR 2SC3400	1
Q012	T2SA608-E-NPC	TR 2SA608-E-NP-AA	1
Q012	T2SA608-F-NPC	TR 2SA608-F-NP-AA	1
Q012	TJA101-Q----C	TR JA101	1
Q013	T2SA608-E-NPC	TR 2SA608-E-NP-AA	1
Q013	T2SA608-F-NPC	TR 2SA608-F-NP-AA	1
Q013	TJA101-Q----C	TR JA101	1
Q014	T2SC3400----C	TR 2SC3400	1
Q020	T2SC3400----C	TR 2SC3400	1
Q021	T2SC3400----C	TR 2SC3400	1
Q022	T2SD1012-G-SC	TR 2SD1012	1
Q023	T2SC1012-G-SC	TR 2SD1012	1
R001	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R002	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R003	RDD1502JPAANA	CARBON 15K JA 1/6W	1
R004	RDD5601JPAANA	CARBON 5.6K JA 1/6W	1
R005	RDD47R0JPAANA	CARBON 47 JA 1/6W	1
R006	RDD5601JPAANA	CARBON 5.6K JA 1/6W	1
R007	RDD1004JPAANA	CARBON 1M JA 1/6W	1
R008	RDD75R0JPAANA	CARBON 75 JA 1/6W	1
R009	RDD1001JPAANA	CARBON 1K JA 1/6W	1
R010	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R011	RDD1502JPAANA	CARBON 15K JA 1/6W	1
R012	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R013	RDD1503JPAANA	CARBON 150K JA 1/6W	1
R014	RDD1203JPAANA	CARBON 120K JA 1/6W	1
R015	RDD2001JPAANA	CARBON 2.2K JA 1/6W	1
R017	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R018	RDD2700JPAANA	CARBON 270 JA 1/6W	1
R019	RDD1202JPAANA	CARBON 12K JA 1/6W	1
R020	RDD3902JPAANA	CARBON 39K JA 1/6W	1
R021	RDD3902JPAANA	CARBON 39K JA 1/6W	1

Ref. No.	Part No.	Description	Q'ty
R022	RDD1502JPAANA	CARBON 15K JA 1/6W	1
R023	RDD2702JPAANA	CARBON 27K JA 1/6W	1
R024	RDD2203JPAANA	CARBON 220K JA 1/6W	1
R025	RDD4702JPAANA	CARBON 47K JA 1/6W	1
R026	RDD4702JPAANA	CARBON 47K JA 1/6W	1
R028	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R029	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R030	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R031	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R032	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R033	RDD5601JPAANA	CARBON 5.6K JA 1/6W	1
R034	RDD8200JPAANA	CARBON 820 JA 1/6W	1
R035	RDD8203JPAANA	CARBON 820K JA 1/6W	1
R037	RDD2200JPAANA	CARBON 220 JA 1/6W	1
R041	RDD2201JPAANA	CARBON 2.2K JA 1/6W	1
R042	RDD1004JPAANA	CARBON 1M JA 1/6W	1
R043	RDD6800JPAANA	CARBON 680 JA 1/6W	1
R044	RDD6800JPAANA	CARBON 680 JA 1/6W	1
R045	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R046	RDD6802JPAANA	CARBON 68K JA 1/6W	1
R047	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R048	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R049	RDD3303JPAANA	CARBON 330K JA 1/6W	1
R050	RDD3303JPAANA	CARBON 330K JA 1/6W	1
R051	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R052	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R053	RDD4702JPAANA	CARBON 47K JA 1/6W	1
R054	RDD4702JPAANA	CARBON 47K JA 1/6W	1
R060	RDD4702JPAANA	CARBON 47K JA 1/6W	1
R061	RDD1801JPAANA	CARBON 1.8K JA 1/6W	1
R062	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R063	RDD4702JPAANA	CARBON 47K JA 1/6W	1
R064	RDD3301JPAANA	CARBON 3.3K JA 1/6W	1
R065	RDD1803JPAANA	CARBON 180K JA 1/6W	1
R066	RDD6802JPAANA	CARBON 68K JA 1/6W	1
R067	RDD6803JPAANA	CARBON 680K JA 1/6W	1
R068	RDD2702JPAANA	CARBON 27K JA 1/6W	1
R069	RDD3303JPAANA	CARBON 330K JA 1/6W	1
R070	RDD10R0JPAANA	CARBON 10 JA 1/6W	1
R071	RDD2R20JPAANA	CARBON 2.2 JA 1/6W	1
R072	RDD3903JPAANA	CARBON 390K JA 1/6W	1
R073	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R074	RDD1201JPAANA	CARBON 1.2K JA 1/6W	1
R075	RDD2703JPAANA	CARBON 270K JA 1/6W	1
R076	RDD4702JPAANA	CARBON 47K JA 1/6W	1
R077	RDD10R0JPAANA	CARBON 10 JA 1/6W	1
R078	RDD2R20JPAANA	CARBON 2.2 JA 1/6W	1
R079	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R080	RDD8202JPAANA	CARBON 82K JA 1/6W	1
R081	RDD2R20JPAANA	CARBON 2.2 JA 1/6W	1
R082	RDD5603JPAANA	CARBON 560K JA 1/6W	1
R083	RDD5603JPAANA	CARBON 560K JA 1/6W	1
R084	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R085	RDD2R20JPAANA	CARBON 2.2 JA 1/6W	1
R086	RDD1803JPAANA	CARBON 180K JA 1/6W	1
R087	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R088	RDD1002JPAANA	CARBON 10K JA 1/6W	1

P.C.BOARD PARTS LIST(Continued)

Ref. No.	Part No.	Description	Q'ty
R089	RDD1202JPAANA	CARBON 12K JA 1/6W	1
R090	RDD1501JPAANA	CARBON 1.5K JA 1/6W	1
R091	RDD8201JPAANA	CARBON 8.2K JA 1/6W	1
R092	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R093	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R094	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R095	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R096	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R097	RDD1503JPAANA	CARBON 150K JA 1/6W	1
R098	RDD1503JPAANA	CARBON 150K JA 1/6W	1
R099	RDD4701JPAANA	CARBON 4.7K JA 1/6W	1
R104	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R105	RDD1000JPAANA	CARBON 100 JA 1/6W	1
R106	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R107	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R108	RDD1201JPAANA	CARBON 1.2K JA 1/6W	1
R109	RDD1201JPAANA	CARBON 1.2K JA 1/6W	1
R110	RDD2203JPAANA	CARBON 220K JA 1/6W	1
R111	RDD2203JPAANA	CARBON 220K JA 1/6W	1
R112	RDD3900JPAANA	CARBON 390 JA 1/6W	1
R113	RDD3900JPAANA	CARBON 390 JA 1/6W	1
R114	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R115	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R116	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R117	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R118	RDD5602JPAANA	CARBON 56K JA 1/6W	1
R119	RDD5602JPAANA	CARBON 56K JA 1/6W	1
R120	RDD1202JPAANA	CARBON 12K JA 1/6W	1
R121	RDD1202JPAANA	CARBON 12K JA 1/6W	1
R122	RDD1501JPAANA	CARBON 1.5K JA 1/6W	1
R123	RDD1501JPAANA	CARBON 1.5K JA 1/6W	1
R124	RDD1001JPAANA	CARBON 1K JA 1/6W	1
R125	RDD1001JPAANA	CARBON 1K JA 1/6W	1
R126	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R127	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R128	RDD2201JPAANA	CARBON 2.2K JA 1/6W	1
R129	RDD2201JPAANA	CARBON 2.2K JA 1/6W	1
R130	RDD6801JPAANA	CARBON 6.8K JA 1/6W	1
R131	RDD6801JPAANA	CARBON 6.8K JA 1/6W	1
R132	RDD1001JPAANA	CARBON 1K JA 1/6W	1
R133	RFXEA01610RON	FUSIBLE 10 JA 1/4W	1
R134	RFXEA00810RON	FUSIBLE 10 J- 1/2W	1
R135	RFXEA01610RON	FUSIBLE 10 JA 1/4W	1
R136	RFXEA00810RON	FUSIBLE 10 J- 1/2W	1
R137	RFXEA00810RON	FUSIBLE 10 J- 1/2W	1
R138	RDD22R0JPAANA	CARBON 22 JA 1/6W	1
R139	RDD22R0JPAANA	CARBON 22 JA 1/6W	1
R140	RDD4700JPAANA	CARBON 470 JA 1/6W	1
R141	RDD1001JPAANA	CARBON 1K JA 1/6W	1
R142	RDD4702JPAANA	CARBON 47K JA 1/6W	1
R143	RDD2200JPAANA	CARBON 220 JA 1/6W	1
R144	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R145	RDD4702JPAANA	CARBON 47K JA 1/6W	1
R146	RDD3301JPAANA	CARBON 3.3K JA 1/6W	1
R147	RDD1001JPAANA	CARBON 1K JA 1/6W	1
R148	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R149	RDD6800JPAANA	CARBON 680	1

Ref. No.	Part No.	Description	Q'ty
R150	RDD1003JPAANA	CARBON 100K JA 1/6W	1
R153	RDD3303JPAANA	CARBON 330K JA 1/6W	1
R154	RDD1000JPAANA	CARBON 100 JA 1/6W	1
R158	RDD1000JPAANA	CARBON 100 JA 1/6W	1
R162	RDD6800JPAANA	CARBON 680 JA 1/6W	1
R163	RDD6800JPAANA	CARBON 680 JA 1/6W	1
R164	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R165	RDD2703JPAANA	CARBON 270K	
R166	RDD2202JPAANA	CARBON 22K	1
R167	RDD2202JPAANA	CARBON 22K	1
R168	RDD2202JPAANA	CARBON 22K	1
R169	RDD2202JPAANA	CARBON 22K	1
R173	RDD1501JPAANA	CARBON 1.5K JA 1/6W	1
R174	RDD1501JPAANA	CARBON 1.5K JA 1/6W	1
R175	RDD10R0JPAANN	CARBON 10 JA 1/6W	1
W06	75330000800505	TW UL1007	1
W08	F49609060	CONNECTOR	1
X001	42259511000	CRYSTAL	1
X001	42259711010	CRYSTAL	1
X002	42259712200	CERAMIC RESONATOR	1
X002	1EA4V10A01100	CERAMIC RESONATOR	1
PC2	**OB1X5820**	**SWITCH P.C.B. ASSY**	
	4B100X5820	PCB, STANDBY SW	1
SW201	4S110X0400	SWITCH, PUSH	1
W02	13129800010240	JUMPER 20	1
	5801CEME575---	CEMEDINE 575	1
PC3	**OB100X5830**	**TRANS P.C.B ASSY**	
	42372008300	EC TERMINAL	2
	4B100X5830	PCB, TRANS	1
W01	13129800018400	JUMPER 3P	1
	30031000190000	TNW 0.6	3
	30031000220000	TNW 0.6	3
	5801CEME575---	CEMEDINE575	
PC3	**OB100X5831**	**TRANS P.C.B. ASSY**	
	42372008300	EC TERMINAL	2
	4B100X5830	PCB, TRANS	1
W01	13129800018400	JUMPER 6P	1
	30031000220000	TNW 0.6	2
	5801CEME575---	CEMEDINE575	
	F49858000	FUSE HOLDER	4
	42352019400	FUSE CLIP	4
	⚠42349203100	FUSE T500MA	2
PC3	**OB100X5833**	**TRANS P.C.B ASSY**	
	F49762110	WIRE ASSY	1
	F49762120	WIRE ASSY	1
	F49762130	WIRE ASSY	1
	F49858000	FUSE HOLDER	4
	⚠42349203100	FUSE T500mA	2
	42352019400	FUSE CLIP	4
	42372008300	EC TERMINAL	2
	4B100X5830	PCB, TRANS	1
	30031000220000	TNW 0.6	1
	5801CEME575---	CEMEDINE 575	
	13129800018400	JUMPER 6P	1

P.C.BOARD PARTS LIST(Continued)

Ref. No.	Part No.	Description	Q'ty
PC4	**OB100X5840**	**CONTROL P.C.B. ASSY**	
	F50250000	PAD	1
	F50266000	TACT SW	1
	F50266010	TACT SW	1
	4B100X5840	PCB, CONTROL	1
	30031000190000	TNW 0.6	5
	30031000220000	TNW 0.6	4
D401	DDGMA01-----A	DI GMA01	1
D401	DD1SS254----A	DI 1SS254	1
D401	DDWG4148----T	DI WG4148	1
D402	DDGMA01-----A	DI GMA01	1
D402	DD1SS254----A	DI 1SS254	1
D402	DDWG4148----T	DI WG4148	1
D403	DDGMA01-----A	DI GMA01	1
D403	DD1SS254----A	DI 1SS254	1
D403	DDWG4148----T	DI WG4148	1
FL401	F50267000	FLT CPF2377	1
R401	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R402	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R403	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R404	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R405	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R406	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R407	RDD2202JPAANA	CARBON 22K JA 1/6W	1
W03	4W300X1483	WIRE 8P×160	1
W04	4W300X1473	WIRE 7P×160	1
W05	4W300X1413	WIRE 11P×160	1
PC4	**OB100X5841**	**CONTROL P.C.B. ASSY**	
	F50250000	PAD	1
	F50266000	TACT SW	9
	F50266010	TACT SW	9
	4B100X5840	PCB, CONTROL	1
	30031000190000	TNW 0.6	4
	30031000220000	TNW 0.6	4
C401	CE1C470MDLALC	ELECT 47μ M 16V	1
D401	DDGMA01-----A	DI GMA01	1
D401	DD1SS254----A	DI 1SS254	1
D401	DDWG4148----T	DI WG4148	1
D402	DDGMA01-----A	DI GMA01	1
D402	DD1SS254----A	DI 1SS254	1
D402	DDWG4148----T	DI WG4148	1
D403	DDGMA01-----A	DI GMA01	1
D403	DD1SS254----A	DI 1SS254	1
D403	DDWG4148----T	DI WG4148	1
FL401	F50267000	FLT CPF2377	1
L401	F50271000	CHOKE COIL 100μH	1
Q401	T2SC536-G-NPC	TR 2SC536-G	1
Q401	T2SC536-F-NPC	TR 2SC536-F	1
R401	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R402	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R403	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R404	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R405	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R406	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R407	RDD2202JPAANA	CARBON 22K JA 1/6W	1
R408	RDD4702JPAANA	CARBON 47K JA 1/6W	1
R409	RDD1002JPAANA	CARBON 10K JA 1/6W	1
R410	RDD4702JPAANA	CARBON 47K JA 1/6W	1
RU401	F49595010	BX-1466	1
RU401	4D610X1002	SBX1610-92	1
RU401	4D610X1010	GPIU501X	1
W03	4W300X1483	WIRE 8P×160	1
W04	4W300X1473	WIRE 7P×160	1
W05	4W300X1413	WIRE 11P×160	1
PC5	**OB100X3300**	**HEADPHONE P.C.B. ASSY**	
	F32279000	PCB H.P.	1
	P49510000	HOTMELT	
C401	CE1H2R2MDFALC	ELECT 2.2μ M 50V	1
C402	CE1H2R2MDFALC	ELECT 2.2μ M 50V	1
C403	CB1E473KADRLC	CERAM 0.047μ K 25V	1
C404	CE1E473KADRLC	CERAM 0.047μ K 25V	1
C405	CE1H1ROMDFALC	ELECT 1μ M 50V	1
C406	CE1H1ROMDFALC	ELECT 1μ M 50V	1
CN10	F49842020	JUMPER 7P	1
IC401	ONJM4556D---N	IC NJM4556D	1
JK401	4J120X0201	JACK 3P	1
Q401	T2SC536-F-NPC	TR 2SC536-F-NP-AA	1
Q401	T2SC536-G-NPC	TR 2SC536-G-NP-AA	1
Q402	T2SC536-F-NPC	TR 2SC536-F-NP-AA	1
Q402	T2SC536-G-NPC	TR 2SC536-G-NP-AA	1
R401	RDD1001JPAANA	CARBON 1K JA 1/6W	1
R402	RDD1001JPAANA	CARBON 1K JA 1/6W	1
R403	RDD6801JPAANA	CARBON 6.8K JA 1/6W	1
R404	RDD6801JPAANA	CARBON 6.8K JA 1/6W	1
R405	RDD1001JPAANA	CARBON 1K JA 1/6W	1
R406	RDD1001JPAANA	CARBON 1K JA 1/6W	1
R407	RDD4701JPAANA	CARBON 4.7K JA 1/6W	1
R408	RDD4701JPAANA	CARBON 4.7K JA 1/6W	1
R409	RDD5600JPAANA	CARBON 560 JA 1/6W	1
R410	RDD5600JPAANA	CARBON 560 JA 1/6W	1
R411	RDD1000JPAANA	CARBON 100 JA 1/6W	1
R412	RDD1000JPAANA	CARBON 100 JA 1/6W	1
R413	RDD5600JPAANA	CARBON 560 JA 1/6W	1
R414	RDD5600JPAANA	CARBON 560 JA 1/6W	1
VR401	42229767800	VR 50KA×2	1

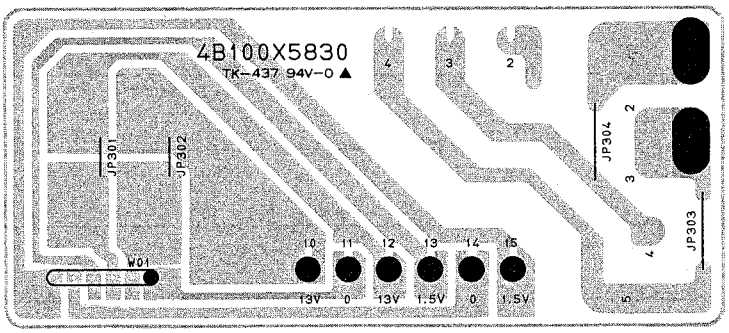
PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

MEMO

POWER SWITCH P.C.BOARD
(TOP VIEW)

CND



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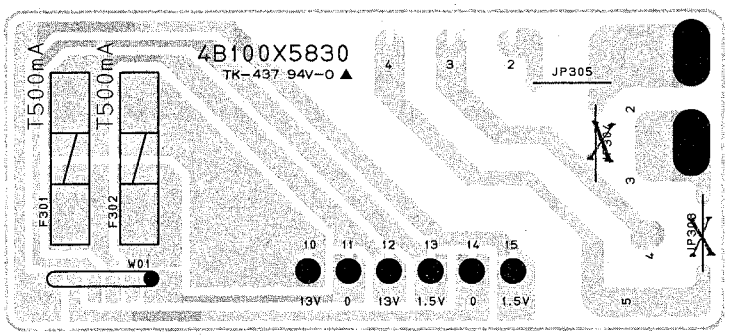

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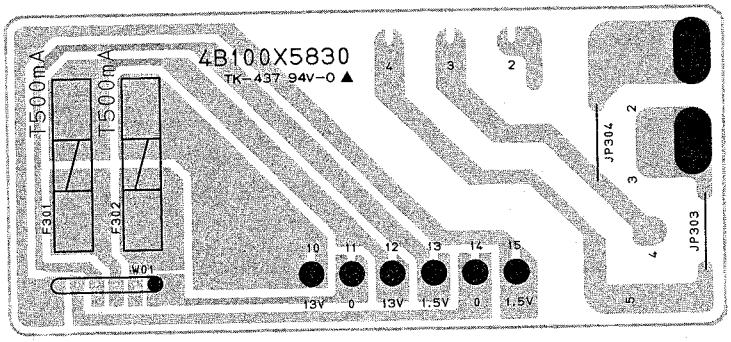
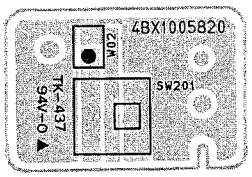
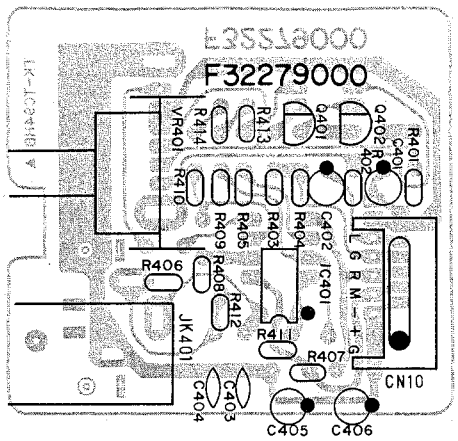


SWITCH P.C.BOARD
(TOP VIEW)

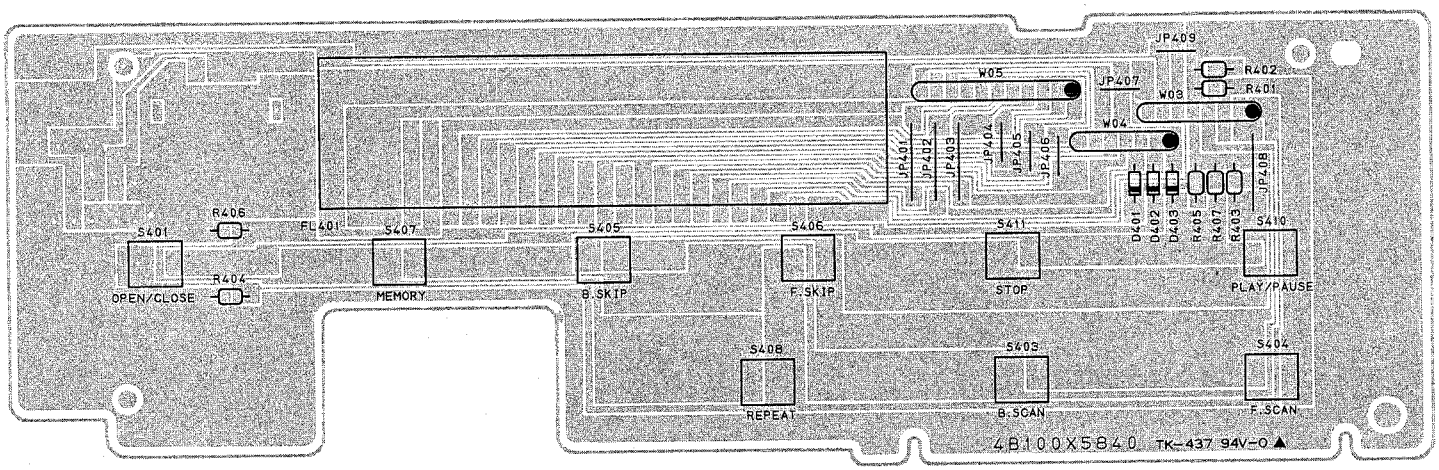


HEADPHONE P.C.BOARD
(TOP VIEW)

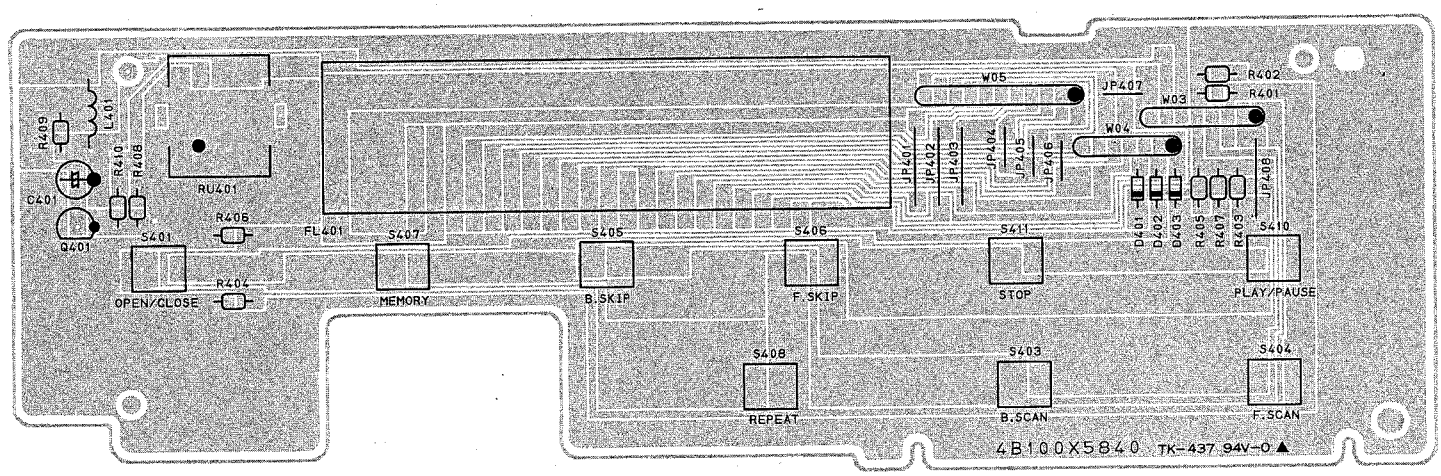


CONTROL P.C.BOARD
(TOP VIEW)

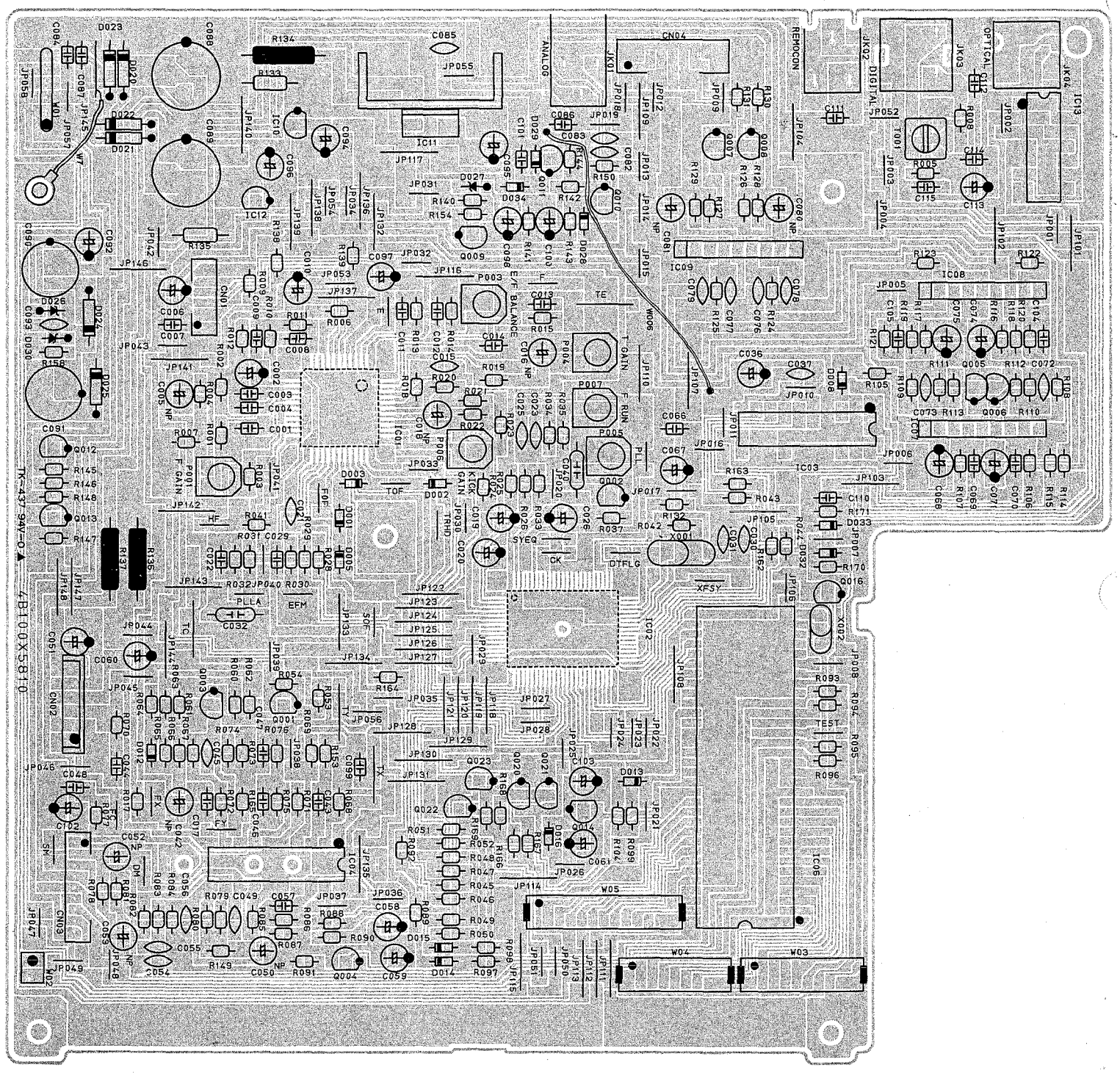
780CD



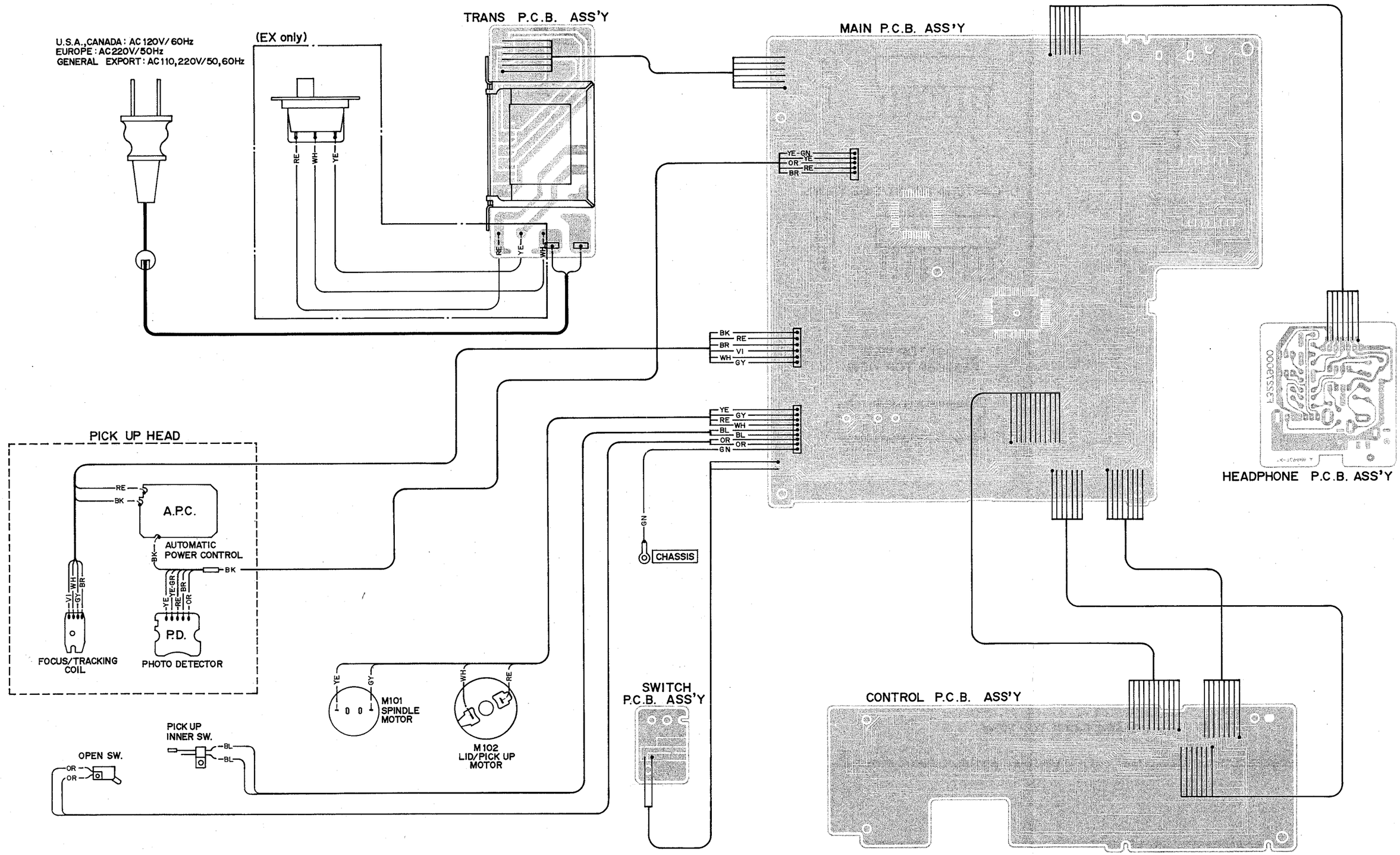
880CD



MAIN P.C.BOARD
(TOP VIEW)



POINT TO POINT WIRING DIAGRAM



SCHEMATIC DIAGRAM 780CD Compact Disc Player

1 2 3 4 5 6 7 8

A B C D E F

ICO1 LA9200NM

ICO2 YM7121B

ICO3 LC7881

ICO4 FA5205P

CN01

CN02

LASER PICK-UP
SF-90

LM358M

FOCUS COIL

TRACKING COIL

A C B D F E

Q01 2SA608

LD

MD

VR1 2K-B

HF

EFM

TRHD

SOF

KICK-GAIN

TOF

FOF

PLLA

XFSY

DTFLG

BCLK

WCLK

LRCK

DATA

CK

SYEQ

+VSPC

GSPC

+VM

GM

TEST

+VL

-VL

+VP

-VP

GL

GP

GRF

-VRF

+VRF

FC

TC

TX

FX

TY

FY

F

TE

E

Q001 +4.4V

Q002 +4.5V

Q003 +0.6V

Q022

D001 D002 D003 D005 D008 D012 D034

X001 16.9344 MHz

P001 10KB

P002 100K

P003 100KB

P004 20KB T-GAIN

P005 10KB

P006 100KB

P007 10KB

R007 1M

R006 5.6K

R004 5.6K NP

R005 0.47/50

R010 22K

R011 15K

R012 10K

R009 1K

R041 2.2K

R042 1M

R043 680

R163 680

R162 680

R044 680

R173 1.5K

R132 1K

R106 10K

R174 1.5K

R107 10K

R105 100

R150 100K

R035 820K

R037 220

R026 47K

R033 5,6K

R025 47K

R034 820

R028 10K

R029 100K

R030 100K

R031 22K

R032 22K

R017 22K

R063 47K

R062 100K

R064 3.3K

R065 180K

R066 68K

R067 680K

R061 1.8K

R060 47K

R053 47K

R054 47K

R045 100K

R046 68K

R052 100K

R051 100K

R049 330K

R050 330K

R048 100K

R047 100K

R168 22K

R093 10K

R094 10K

R095 10K

R096 10K

R03 470K

R01 27

R02 10K

R04 1K

R071 2.2

R070 10

R077 10

R069 330K

R068 27K

R153 330K

R074 1.2K

R072 390K

R165 270K

R076 47K

R075 270K

R073 22K

R014 100K

R015 2.2K

R013 150K

R020 39K

R018 270

R019 12K

R021 39K

R022 15K

R023 27K

R024 220 K

R027 10K

R164 10K

R138 22

R139 22

C001 68P

C002 0.47/50

C003 180P

C004 68P

C005 0.47/50

C006 10/16

C007 0.01

C008 2P

C009 10P

C010 10/16

C097 10/16

C011 33P

C012 33P

C013 0.01

C014 0.001

C015 0.15

C016 0.47/50

C018 0.47/50 N.P

C017 470P

C021 0.033

C022 0.1

C032 0.022

C030 22P

C031 22P

C037 0.01

C036 220 /6.3

C068 47 /6.3

C069 3.3P

C070 3.3P

C071 47/6.3

C067 100/63

C066 1000P

C122 10/16

C040 0.022

C026 4.7/25

C019 100/6.3

C020 4.7/25

C023 0.01

C025 100P

C029 0.01

C048 0.1

C044 0.1

C099 220P

C046 470P

C047 0.1

C042 4.7/25 N.P

C043 4.7P

C045 0.068

C051

C01 100/6.3

C02 100 /6.3

R04 1K

+5.1V

+3.9V

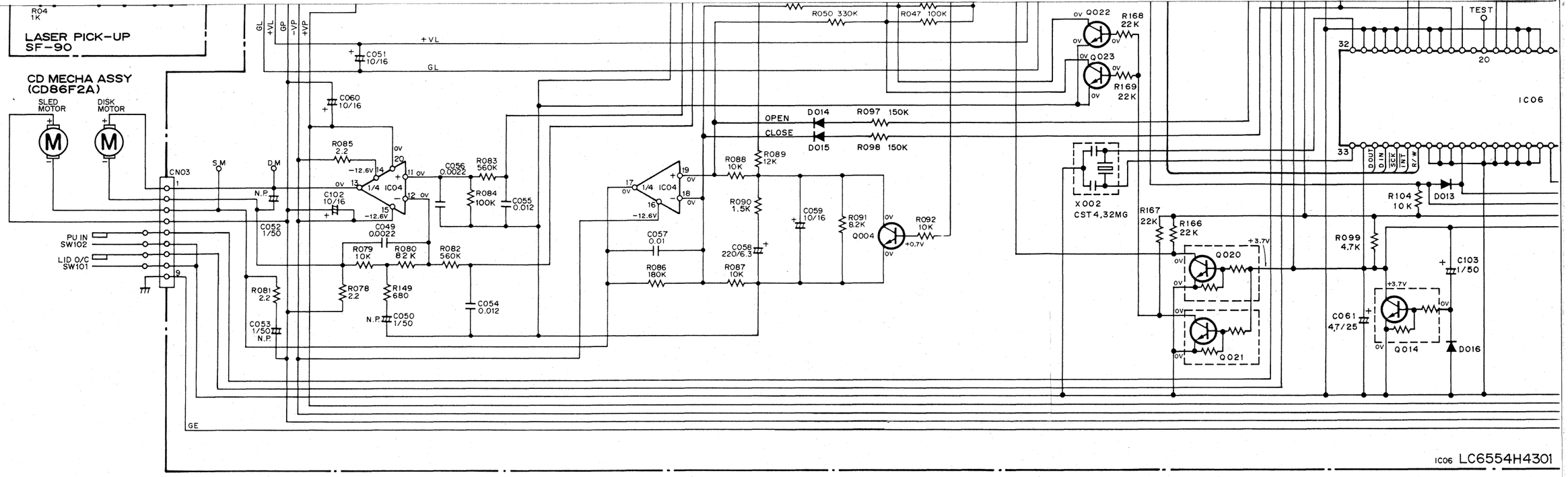
+2.4V

+5V

+5.8V

0V

-12.6V



IC06 LC6554H4301

IC PIN NUMBER DC VOLTAGES

SYMBOL. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC01	LA9200NM	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	5.0V	1.2V	0V	4.3V	4.3V	−5.5V	1.2V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		5.0V	2.1V	2.5V	2.5V	0V	2.5V	0V	2.5V	2.5V	0V	0V	0.6V	0.6V	−0.1V	−0.1V	−0.1V	0V	3.9V	−0.1V	5.9V
		41	42	43	44	45	46	47	48												
		0V	0V	−5.6V	0V	0V	0V	0V	0V												

IC PIN NUMBER DC VOLTAGES

SYMBOL. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC02	YM7121	2.0V	2.4V	5.0V	5.0V	5.0V	0V	0.3V	1.5V	2.7V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	2.6V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		0V	0V	2.8V	0V	0V	2.5V	3.4V	2.7V	0V	1.9V	2.3V	5.0V	5.0V	0V	0V	0V	0V	5.0V	2.6V	2.9V
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
		2.7V	1.7V	1.7V	0V	0V	0V	0V	0V	0V	0V	5.0V	0V	0V	0V	4.3V	0V	0V	0V	5.0V	0V
		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
		5.0V	0V	0V	0V	0V	0V	4.3V	0V	0V	5.0V	3.7V	5.0V	3.3V	2.6V	2.7V	2.1V	0V	2.0V	3.9V	2.0V

IC PIN NUMBER DC VOLTAGES

SYMBOL. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC03	LC7881	2.5V	4.9V	4.9V	4.9V	0V	2.7V	2.9V	0V	2.5V	4.9V	0.5V	0V	0V	4.9V	0V	0V	0V	0V	0V	2.5V

IC PIN NUMBER DC VOLTAGES

SYMBOL. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC06	LC6554H -4301	−17.0V	−17.5V	−17.5V	−17.5V	−17.5V	−17.5V	−17.5V	−20V	−20V	0V	0V	0V	0V	0.2V	0V	0V	0V	5.0V	5.0V	5.0V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		5.0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	2.2V	2.4V	3.7V	0V	5.0V	5.0V	0V	0V	0V
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
		0V	0V	5.0V	0.4V	0V	0V	0V	0V	0V	0V	−21V	−6.8V	−6.8V	−6.8V	−6.8V	−7.3V	−7.3V	−20V	−20V	−20V
		61	62	63	64																
		−20V	−20V	−20V	5.0V																

7 8 9 10 12 13 14

IC03 LC7881

IC07 ~ IC09 NJM2068S

IC11 78M05

IC10 78L006AP

IC11 78M05

IC12 79L006P

JK04 OPTICAL OUTPUT

JK03 DIGITAL COAXIAL

JK01 ANALOG Lch

R ch

W01 POWER CORD

U.S.A., CANADA : 120V AC/60Hz

TRANS

SLIDE SW 220V 110V

F301 T500mA

F302 T500mA

GENERAL EXPORT: 110, 220V AC/50, 60Hz

W06 CN10 CN04

Lch G Rch Mute -VA +VA GA

Q401, Q402 2SC536

IC401 NJM4556D

HEADPHONE P.C.B.

POWER CORD

EUROPE: 220V AC/50Hz

AUSTRALIA: 240V AC/50Hz

TRANS P.C.B.

W03 W04

KEY 3 KEY 2 KEY 1 KEY 0

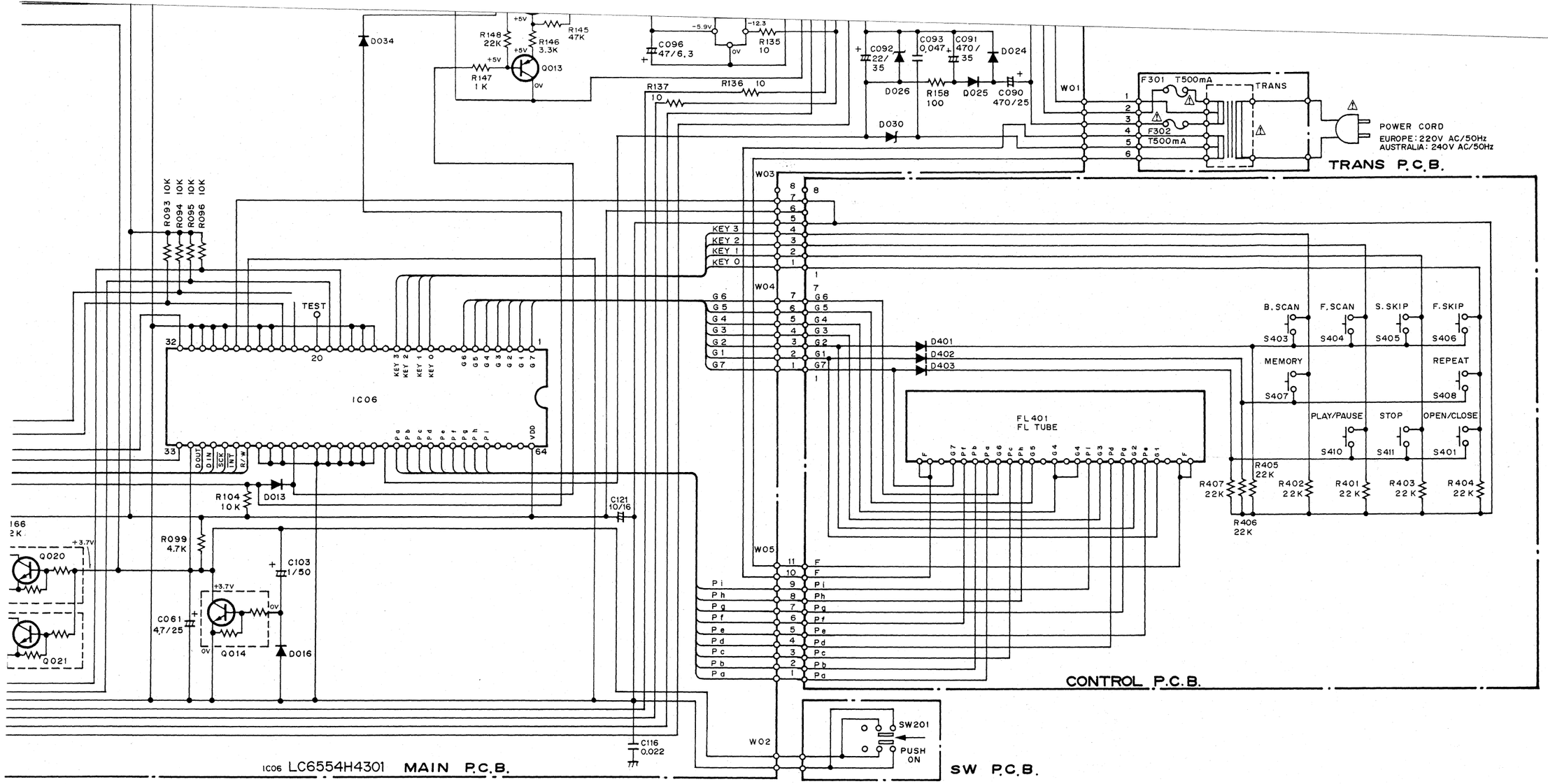
G6 G5 G4 G3 G2 G1

TEST

B.SCAN F.SCAN S.SKIP F.SKIP

S403 S404 S405 S406

MEMORY REPEAT



VOLTAGES										
10	11	12	13	14	15	16	17	18	19	20
4.9V	0.5V	0V	0V	4.9V	0V	0V	0V	0V	0V	2.5V

VOLTAGES										
10	11	12	13	14	15	16	17	18	19	20
0V	0V	0V	0V	0.2V	0V	0V	0V	5.0V	5.0V	5.0V
30	31	32	33	34	35	36	37	38	39	40
0V	0V	2.2V	2.4V	3.7V	0V	5.0V	5.0V	0V	0V	0V
50	51	52	53	54	55	56	57	58	59	60
0V	−21V	−6.8V	−6.8V	−6.8V	−6.8V	−7.3V	−7.3V	−20V	−20V	−20V

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

NOTES:

1. All resisters values are indicated in "ohm" (K=10^3, M=10^6).
2. All capacitors values are indicated in "μF" (P=10^{-12}).
3. All voltages indicated on the schematics are measured under the following conditions.
   a. Use a V.T.V.M.
   b. All voltages ±10% with respect to chassis ground.
   c. No signals at input terminals.
   d. AC input at 220 volts 50Hz.
4. This is a basic schematic diagram.

CHUO DENKI CO., LTD. reserves the right to make any changes or modifications without notice for improvements.

SCHEMATIC DIAGRAM 880CD Compact Disc Player

1 2 3 4 5 6 7

A B C D E

IC01 LA9200NM

IC02 YM7121B

IC03 LC7881

IC04 FA5205P

CN01 CN02

Q001 Q002 Q003 Q01

D001 D002 D003 D005 D012

X001 16.9344 MHz

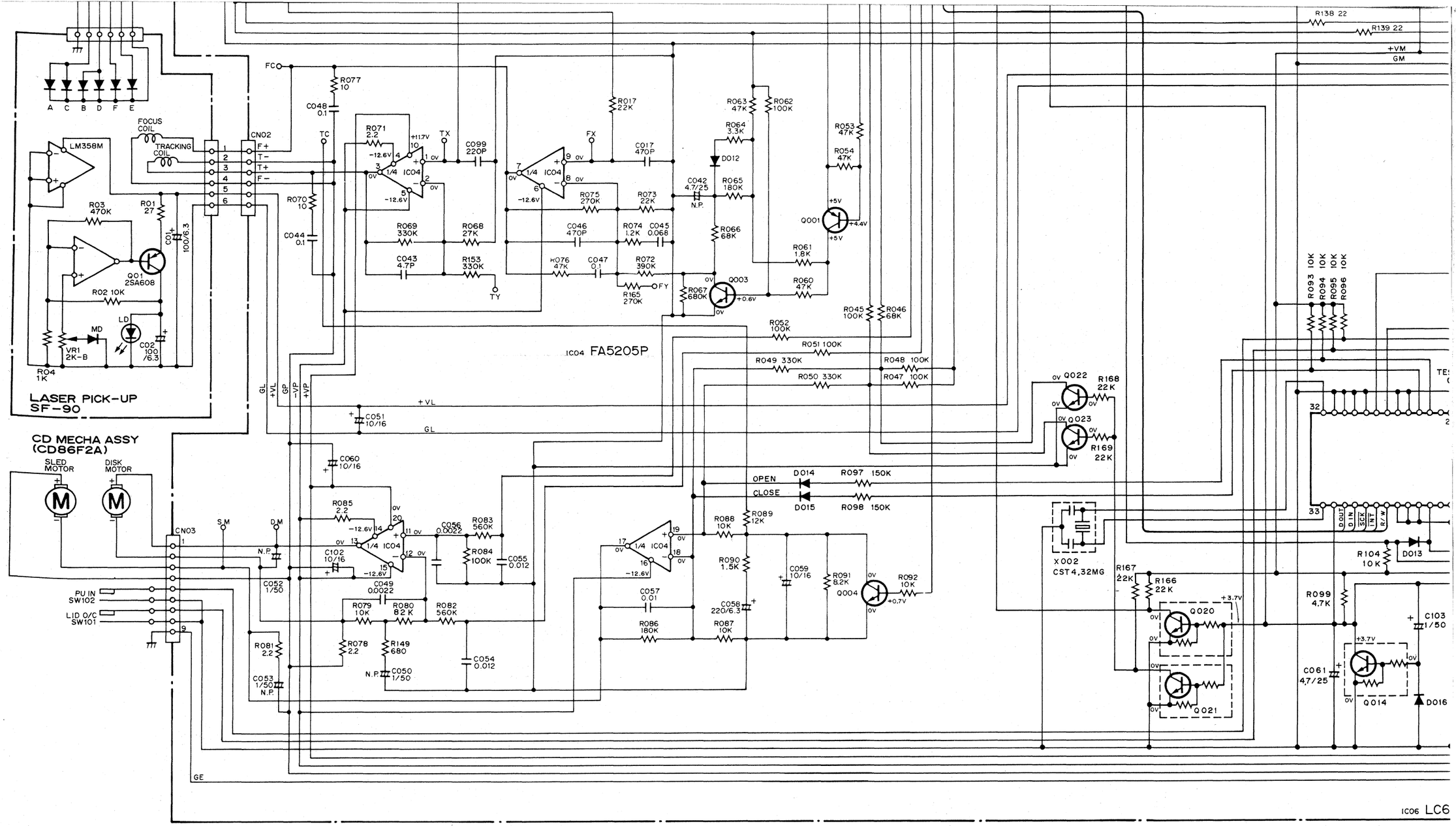
HF EFM FOF TOF TRHD SOF KICK-GAIN

XFSY DTFLG CK SYEQ

+VSPC GSPC +VM GM

FOCUS COIL TRACKING COIL LM358M

LD MD VR1 2K-B



IC PIN NUMBER DC VOLTAGES

SYMBOL. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC01	LA9200NM	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	5.0V	1.2V	0V	4.3V	4.3V	−5.5V	1.2V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		5.0V	2.1V	2.5V	2.5V	0V	2.5V	0V	2.5V	2.5V	0V	0V	0.6V	0.6V	−0.1V	−0.1V	−0.1V	0V	3.9V	−0.1V	5.9V
		41	42	43	44	45	46	47	48												
		0V	0V	−5.6V	0V	0V	0V	0V	0V												

IC PIN NUMBER DC VOLTAGES

SYMBOL. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC02	YM7121	2.0V	2.4V	5.0V	5.0V	5.0V	0V	-0.3V	1.5V	2.7V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	2.6V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		0V	0V	2.8V	0V	0V	2.5V	3.4V	2.7V	0V	1.9V	2.3V	5.0V	5.0V	0V	0V	0V	0V	5.0V	2.6V	2.9V
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
		2.7V	1.7V	1.7V	0V	0V	0V	0V	0V	0V	0V	5.0V	0V	0V	0V	4.3V	0V	0V	0V	5.0V	0V
		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
		5.0V	0V	0V	0V	0V	0V	4.3V	0V	0V	5.0V	3.7V	5.0V	3.3V	2.6V	2.7V	2.1V	0V	2.0V	3.9V	2.0V

IC PIN NUMBER DC VOLTAGES

SYMBOL. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
IC03	LC7881	2.5V	4.9V	4.9V	4.9V	0V	2.7V	2.9V	0V	2.5V	4.9V	0.5V	0V	0V	4.9V	0V	0V	0V	0V	0V

IC PIN NUMBER DC VOLTAGES

SYMBOL. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
IC06	LC6554H -4301	−17.0V	−17.5V	−17.5V	−17.5V	−17.5V	−17.5V	−17.5V	−20V	−20V	0V	0V	0V	0V	0.2V	0V	0V	0V	5.0V	5.0V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
		5.0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	2.2V	2.4V	3.7V	0V	5.0V	5.0V	0V	0V
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
		0V	0V	5.0V	0.4V	0V	0V	0V	0V	0V	0V	−21V	−6.8V	−6.8V	−6.8V	−6.8V	−7.3V	−7.3V	−20V	−20V
		61	62	63	64															
		−20V	−20V	−20V	5.0V															

IC03 LC7881

IC07～IC09 NJM2068S

IC11 78M05

IC10 78L006AP
IC11 78M05

IC12 79L006P

JK04 OPTICAL OUTPUT

JK03 DIGITAL COAXIAL

JK01 ANALOG L ch

R ch

W01

W06

CN10

CN04

W03

W04

W01
POWER CORD
U.S.A., CANADA : 120V AC/60Hz

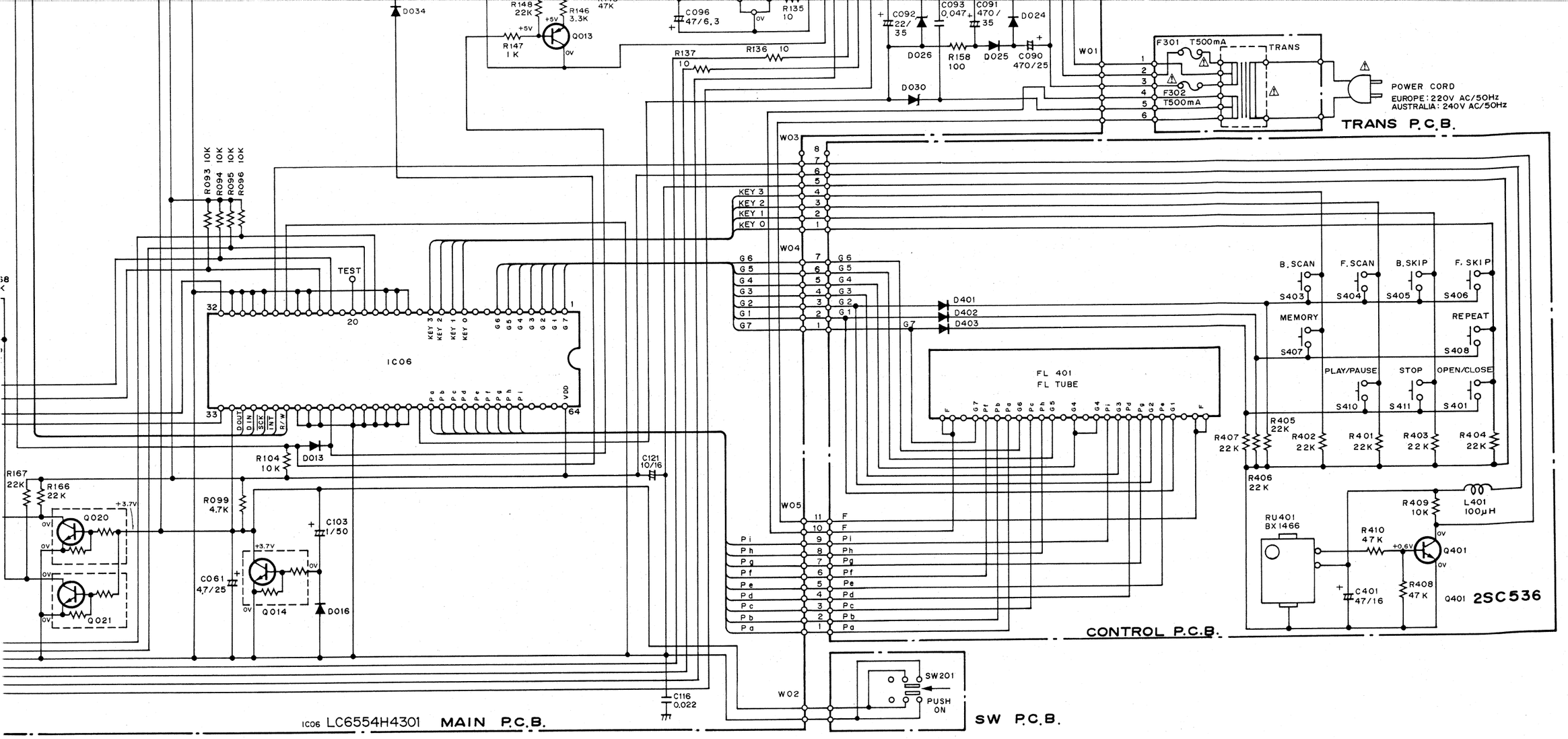
W01
SLIDE SW 220V 110V
F301 T500mA
F302 T500mA
POWER CORD
GENERAL EXPORT:
110, 220V AC/50,60Hz

HEADPHONE P.C.B.

Q401, Q402 2SC536

IC401 NJM4556D

TRANS P.C.B.
F301 T500mA
F302 T500mA
POWER CORD
EUROPE: 220V AC/50Hz
AUSTRALIA: 240V AC/50Hz



MBER DC VOLTAGES												
	9	10	11	12	13	14	15	16	17	18	19	20
	2.5V	4.9V	0.5V	0V	0V	4.9V	0V	0V	0V	0V	0V	2.5V

MBER DC VOLTAGES												
	9	10	11	12	13	14	15	16	17	18	19	20
/	−20V	0V	0V	0V	0V	0.2V	0V	0V	0V	5.0V	5.0V	5.0V
	29	30	31	32	33	34	35	36	37	38	39	40
	0V	0V	0V	2.2V	2.4V	3.7V	0V	5.0V	5.0V	0V	0V	0V
	49	50	51	52	53	54	55	56	57	58	59	60
	0V	0V	−21V	−6.8V	−6.8V	−6.8V	−6.8V	−7.3V	−7.3V	−20V	−20V	−20V

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

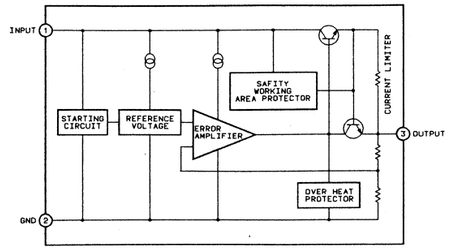
NOTES:

1. All resisters values are indicated in "ohm" (K=10^3, M=10^6).
2. All capacitors values are indicated in "μF" (P=10^{-12}).
3. All voltages indicated on the schematics are measured under the following conditions.
   a. Use a V.T.V.M.
   b. All voltages ±10% with respect to chassis ground.
   c. No signals at input terminals.
   d. AC input at 220 volts 50Hz.
4. This is a basic schematic diagram.

CHUO DENKI CO., LTD. reserves the right to make any changes or modifications without notice for improvements.

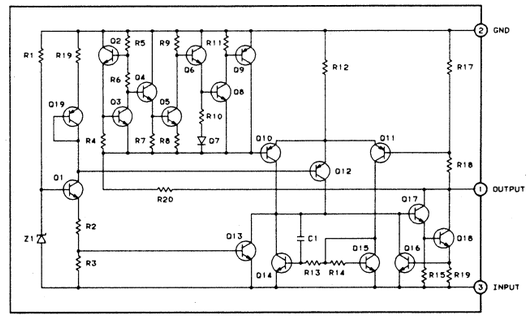
IC & TRANSISTOR LEAD IDENTIFICATION(Continued)

L78M05 TOP/SIDE VIEWS

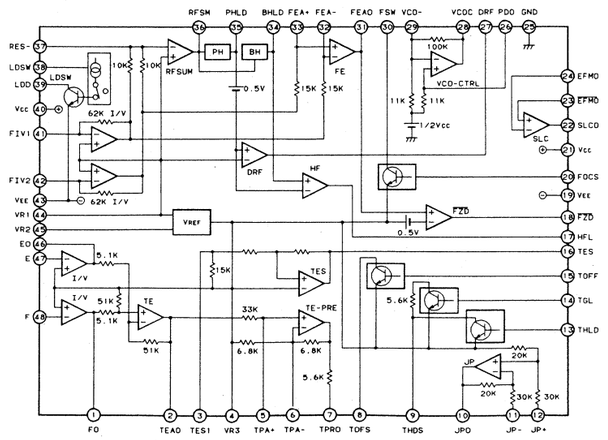


	INPUT	GND	OUTPUT
L78M05	1	2	3
NJM78M05FA	3	2	1

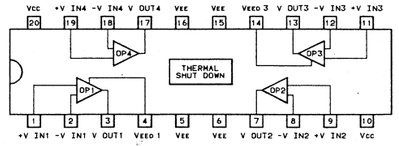
TA79L006P BLOCK DIAGRAM



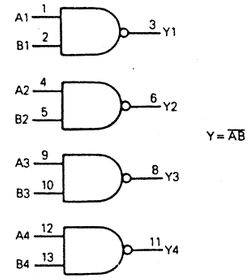
LA9200NM BLOCK DIAGRAM



FA5205P BLOCK DIAGRAM



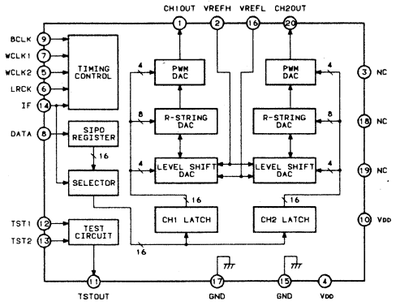
MC74HC00 BLOCK DIAGRAM



$Y = \overline{AB}$

$V_{CC} = 14$
GND = 7

LC7881 BLOCK DIAGRAM



NJM2068S BLOCK DIAGRAM
UPC4570HA BLOCK DIAGRAM
LA6458SS BLOCK DIAGRAM